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SENESCO

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*cell death*

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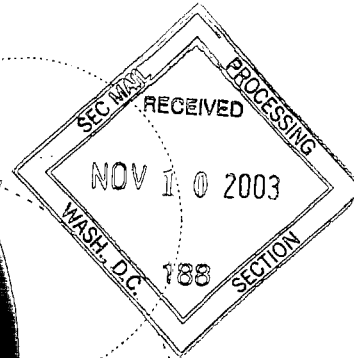
2003

ANNUAL REPORT

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SENESCO

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SENESCO



**It seems like a minor detail of life. Something we've grown to accept over time. The idea that we only have a small window of time to enjoy a banana at its peak of ripeness. That brief period when it is neither green and under-ripe nor spotted, brown and mealy. And yet, research on lengthening the shelf life of produce has led the researchers at Senesco to what we believe could be one of the most important scientific breakthroughs of our time.**

ON

OFF

senescence is the technical word for the process by which a plant cell ages, breaks down and eventually dies. All cells are programmed to perform their functions and then perish in order to be replaced by new cells. The faster the cells die, the faster the plant deteriorates. Or in the case of bananas and other fruit, spoils.

Armed with this knowledge, Perseco's scientists were able to isolate and characterize two genes, EES and Factor 5A, which control the process of senescence. Meaning that our scientists now held the keys to slow down or speed up cell death at their discretion. The importance and possible ramifications of this discovery were so promising that we based our entire research and development program on better understanding these genes.

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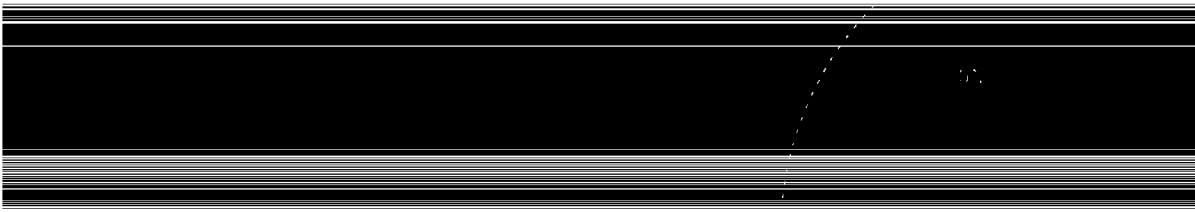


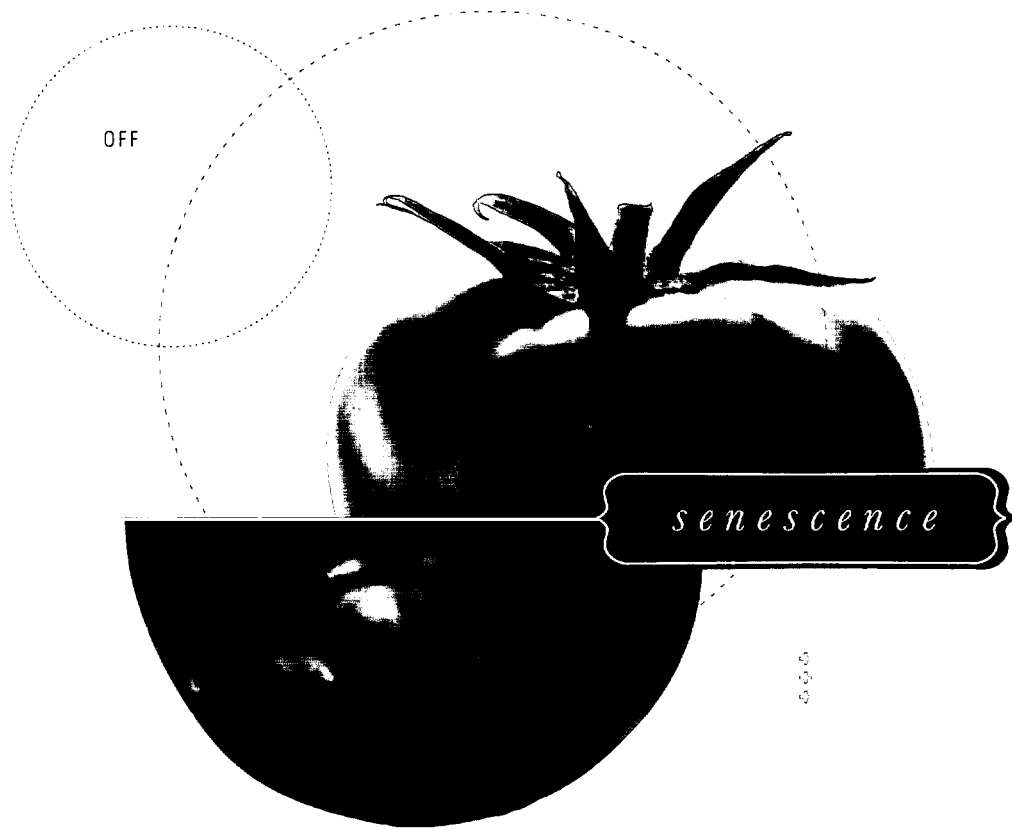
Many factors can contribute to accelerated senescence in plants. Heat, drought, soil salinity, and other environmental stresses can cause premature aging in all vegetation. However, the ability to slow senescence (think of turning off a light switch) negates these factors and allows plants to grow even under the most favorable conditions, which leads to bigger and more robust crops.

The benefits are equally as impressive after harvest. Think of the banana as it sits on the supermarket shelf. Untreated, senescence quickly renders it inedible. However, because Senesco's technology is enabled when optimum ripeness has been

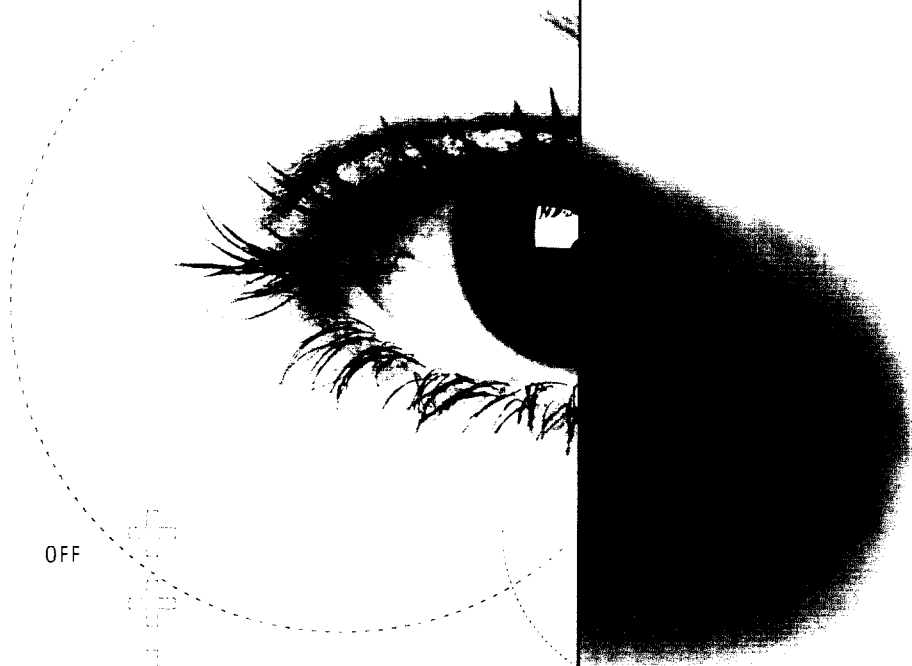
achieved, the consumer receives a product whose longevity is extended while maintaining taste, texture and nutritional value.

Indeed, every step of the agricultural marketing chain could be positively affected by Senesco's discovery. For the grower, plant size, growth rates and even seed yield are all augmented while the effects of environmental forces are diminished. For the retailer, the shelf life of highly perishable produce like lettuce, tomatoes and bananas is increased dramatically. Finally, the consumer can count on fresher, longer-lasting fruits and vegetables for their families to enjoy.





A G R I C U L T U R E

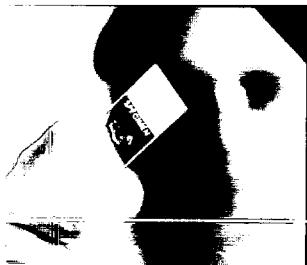


*apoptosis*

H U M A N

As the benefits of controlling senescence in plant life became apparent, it wasn't long before a remarkably compelling question arose. What if we could control cell death in human beings? The exciting truth is that the same two genes that regulate cell death in plants exist in all living matter, including us.

In humans, the process of programmed cell death is called apoptosis. Premature apoptosis causes many of the negative effects which can in conjunction with conditions like glaucoma and heart ischemia where tissue is deprived of oxygen. On the other hand, cells that fail to undergo apoptosis are a trademark of cancer. If we can control cell death in human cells, as we can in plant cells, then we can help people who suffer from these diseases. Cell death can be delayed in the cases of glaucoma and ischemia to minimize the damage. We can speed up apoptosis (now think of turning the light switch on) in cancerous cells. The ultimate result being that we can potentially help people live healthier and consequently longer lives.



Senesco's strategy for the future includes licensing our technology to companies in both the agricultural and human health industries. We believe that this two-pronged approach will allow us to maximize our efforts in agriculture and human health.

In the agricultural side, these licensing agreements will generate revenue in the form of licensing fees, research and development benchmark payments and royalties from sales of enhanced crops. This means that we could see returns at nearly every stage of product development and that our technology will be distributed throughout a wide variety of crops. At present, we have a joint venture with Rahan Systems for banana research and development, and agreements with: AbotGen for use in forestry species, All West Seeds for the forage seed market especially alfalfa and the Harris Moran Seed Company for the enhancement of lettuce and melons.

Our human health research and development program is progressing as well. We are looking to partner with health care and biopharmaceutical companies who have the capability and resources to use our technology to address a broad range of diseases, whether that treatment is a drug, direct therapy or some other solution. We will also establish pre-clinical data on the role of our technology in a variety of other diseases.

In both the agricultural and human health universes, we believe Senesco could hold the keys to an extremely bright future. The possibilities and opportunities await us.

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## *To our Stockholders:*

Senesco has made significant progress in the year since our letter to you of July 2002.

In the agricultural field, we have added new partners: ArborGen, LLC for the enhancement of forestry products (July 2002) and CalWest Seeds for forage crops (September 2002). We are in active discussions with other potential licensees.

Our ongoing negotiations regarding the Letter of Intent signed with the Tianjin Academy of Agricultural Science (October 2002) have included representatives of the Academy, and from government. We have also been in discussion with Chinese biotechnology companies. Such a company would be needed to secure the necessary financing for the proposed agreement with the Academy and to commercialize the seeds developed with our technology or to pursue direct development with potential commercial partners. The SARS outbreak slowed our progress, however our discussions with these various Chinese parties, are active and ongoing.

Two of our partners have advanced crops to the second year of field trials: Harris Moran for iceberg and romaine lettuce, and Rahan Meristem for bananas. In the first year of plantings, Senesco lettuce showed delayed browning after cutting and the Senesco banana plants grew faster and reached maturity earlier than control plants. Additionally, the harvested banana fruit which had Senesco's technology, showed a doubling in shelf life. In the second year of field trials for these two crops, we will further test and refine the application of our technology to improve on the desired traits. If these trials are successful, the next development stage may be to implement our technology through conventional breeding techniques. We are pursuing potential commercialization partners for these crops.

On the human health side, we have also made strides in our pre-clinical research projects directed towards glaucoma, heart ischemia, and cancer. A very exciting discovery this year was that Senesco's Factor 5A gene may control the expression of key immune regulators, known as cytokines. Cytokines are responsible for inflammation and cell death. High levels of these immune regulators have been associated with the damaging effects of rheumatoid arthritis, Crohn's disease and colitis, glaucoma, heart ischemia, periodontitis, multiple myeloma, psoriasis, and several other inflammatory diseases. We will explore if blocking Factor 5A can reduce the production of these cytokines and thus become a drug candidate. Dr. Thompson discusses these projects in his Research Review letter.

During this past year, Senesco received its first issued patent (U.S. Patent #6,538,182 B1- March 2003) and filed additional patent applications, divisionals and continuations in part. Senesco was covered in an analyst report from the firm Melhado & Flynn (December 2002) and we revamped our website (January 2003). We have also been continuing our efforts to increase visibility of Senesco. During calendar 2003, we have already made in excess of 40 presentations to brokers, analysts, fund managers and private investors and have issued

14 press releases. Recently, Senesco presented at the Seventh International Congress of Plant Molecular Biology (June 2003), at the International Cytokine Society Annual Meeting (September 2003) and, at the Rodman & Renshaw Techvest 5th Annual Healthcare Conference (October 2003). We have also engaged Sands Brothers International, Ltd. to act as our financial advisors for investment banking, strategic partnering and licensing opportunities. We believe that this relationship will be of value given their strong network of contacts within the biotechnology and healthcare communities.

At the December 13, 2002 Stockholders' Meeting, we set out the following goals for the calendar year 2003:

- Convert the Tianjin LOI into an executed contract
- Increase the number of agricultural licensees
- Achieve milestones under existing agreements
- Initiate biopharma contacts
- Continue to expand communications

As outlined above, some of these goals have been reached and we are working diligently to fully achieve each of these goals.

During the year we welcome Mr. John N. Braca, CPA to our Board of Directors. He will serve on the company's audit committee and his background and industry experience will be most relevant to support the Board's efforts to guide and oversee the company's activities. We accepted Mr. Philip Livingston's resignation from the board due to increased demands on his time in connection with his new job. We thank him for his services to Senesco.

We would like to take this opportunity to thank all Senesco's employees as well as all our associated research teams for their continued hard work, dedication and enthusiasm in striving to build our company.

Regards,



Bruce C. Galton  
*President & CEO*



Ruedi Stalder  
*Chairman of the Board*

## *To our Stockholders:*

Expanded research and development initiatives over the past year have confirmed the broadly based efficacy of Senesco's technology as a means of controlling programmed cell death. It is becoming increasingly clear that our proprietary genes can be used to enhance agricultural crops, and also as a target for the development of new therapeutics for a broad spectrum of human diseases. I am pleased to have this opportunity to provide an update on the highlights of this recent progress.

Senesco's technology is based on the discovery of two genes, DHS and Factor 5A. DHS activates Factor 5A, which in turn appears to function as a switch. Over the past year, we have elucidated the molecular nature of this switch, leading to the realization that it not only controls death of cells, but also their ability to divide. Specifically, there are two forms of Factor 5A: 'death Factor 5A' which controls cell death and 'growth Factor 5A' which controls cell division. Depending on the relative concentrations of the two forms of Factor 5A, the switch can be in one of three positions: the death position, the growth position or off. When the switch is off, cells are neither dying nor dividing, but continue to function.

The Company has also established that the Factor 5A switch operates in both plant and human cells. Protocols for controlling the position of the switch have been developed over the past year and are being utilized to improve traits of selected agricultural crops and to develop therapeutics for selected human diseases.

### **Agricultural Sector**

Enhancement of shelf life has been achieved by turning the Factor 5A switch from the death position to the off, or nearly off, position in a variety of crops. In partnership with Rahan Meristem, our technology is being used to increase the shelf life of banana fruit. Our first field trial was completed this past summer and yielded fruit with an approximate doubling of shelf life. In partnership with Harris Moran Seed Company, our technology is being directed toward reducing browning of cut lettuce for use in pre-packaged bagged salads. The first lettuce field trial was completed in 2002 with successful results, and additional field trials are in progress. Our greenhouse trials with tomato have indicated that we can increase fruit shelf life by approximately 100%. Likewise, our greenhouse trials with carnation have shown that cut flowers with Senesco technology enhancement have an approximate doubling of shelf life, which confirms the broad applicability of the technology in the field of ornamental plants.

Enhancement of growth and yield has been achieved by locking the Factor 5A switch into the growth position for several important crops. In studies with *Arabidopsis*, a model test plant, we have demonstrated increased seed yield (up to 100%), increased biomass (up to 200%) and increased root mass resulting in more efficient use of fertilizer. In conjunction with Cal/West Seeds, our technology is being used to increase yield and drought tolerance (see the paragraph below) of alfalfa. ArborGen, our development partner for forestry species, is also deploying the technology to increase yield and drought tolerance. In addition, we have obtained up to a 65% increase in seed yield for canola in our own greenhouse studies.

We have also demonstrated that by controlling the position of the Factor 5A switch, it is possible to confer greatly increased tolerance to environmental stress upon crops. For example, under conditions of drought stress that are 95% lethal to *Arabidopsis* plants, corresponding Senesco plants show survival rates of up to 90%.

## **Human Health Sector**

There are two isoforms of Factor 5A in the human genome. Just as in plants, we have demonstrated that these two forms of Factor 5A appear to function as a switch that regulates cell division in one position and cell death in another position.

The Company has also developed specific inhibitors of Factor 5A1 (the death isoform) expression that are capable of shifting the Factor 5A switch from its on position to the off position. These inhibitors are currently being tested in pre-clinical studies as potential therapeutics for controlling specific human disease states (identified below) that are attributable to premature apoptosis (cell death).

### **Heart Failure**

Ischemia (lack of oxygen), which is the cause of heart attacks, can result in chronic heart failure because heart muscle cells undergo premature apoptosis (cell death) in the absence of oxygen. In collaboration with the University of Colorado, School of Medicine, Senesco has demonstrated that the Factor 5A death switch appears to control the initiation of apoptosis in ischemic human heart tissue. The switch is off in healthy human heart tissue, but rapidly assumes the death position in the event of ischemia. Animal experiments designed to test the efficacy of Factor 5A1 inhibitors as therapeutics for ameliorating ischemia-induced chronic heart failure are currently in progress. Our collaboration with the University of Colorado, School of Medicine, has also established that Factor 5A1 is positively correlated with IL-18, a pro-inflammatory cytokine, in diseased heart tissue, but not in healthy heart tissue. Cytokines (proteins made by the immune system) induce inflammation and target cells for apoptosis. This is a very important observation, raising the possibility that, just as the Factor 5A switch controls the onset of apoptosis, it may also control the cascaded production of pro-inflammatory cytokines. In light of this, the Company has initiated an aggressive series of pre-clinical studies to assess the potential of Factor 5A1 inhibitors as anti-inflammatory drugs.

### **Glaucoma**

Glaucoma arises when retinal ganglion cells undergo ischemia-induced premature apoptosis. In collaboration with the School of Optometry at the University of Waterloo, Senesco has demonstrated that the Factor 5A death switch appears to control the initiation of apoptosis in cells of the human optic nerve head. We have also demonstrated that by preventing the death switch from being turned on, we can inhibit the induction of apoptosis in these cells by up to 70%.

### **Cancer**

Cancer arises when cells targeted by the immune system to undergo apoptosis fail to do so because of an inability to activate the apoptotic pathways. In pre-clinical studies conducted over the past 12 months, Senesco has established that the Factor 5A switch is locked in the growth position in human tumor cells and can be shifted to the death position, resulting in tumor cell death, by deploying the Company's proprietary Factor 5A1 gene. Indeed, expression of the Factor 5A1 gene in cancer cell lines results in 95 to 100% killing, indicating that the gene is a very powerful inducer of cancer cell death. The powerful cancer cell-killing ability of Factor 5A1 can be explained by the fact that it appears to control expression of the entire suite of genes required for the execution of cell death. The Company has shown, for example, that Factor 5A1 controls the expression of p53, a powerful tumor suppressor, caspases and death receptors, all of which are required for the execution of senescence, and also down-regulates bcl-2, a suppressor of apoptosis.

Since Factor 5A1 appears to function as a critical upstream switch of the apoptotic pathways, we believe it has potential as a therapeutic for controlling a broad range of cancers. As a prelude to clinical trials, animal studies testing the ability of Factor 5A1 to shrink tumors as well as its toxicity are currently in progress at two major hospitals.

It has been a year of great progress. We look forward to advancing our technology and its application to both agriculture and human health as we continue our research initiatives.

Sincerely,

A handwritten signature in black ink, appearing to read "John E. Thompson". The signature is stylized with a large, looped "J" and "T".

John E. Thompson, Ph.D.

*Executive Vice President, Research and Development*

*“Expanded research and development initiatives over the past year have confirmed the broadly based efficacy of Senesco’s technology as a means of controlling programmed cell death.”*

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*Dr. E. Thompson, Ph.D.*

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*Executive Vice President, Research and Development*

**United States Securities and Exchange Commission**

*Washington, D.C. 20549*

**FORM 10-KSB**

**ANNUAL REPORT UNDER SECTION 13 OR 15(d) OF  
THE SECURITIES EXCHANGE ACT OF 1934.**

For the fiscal year ended June 30, 2003

Commission File No. 001-31326

**Senesco Technologies, Inc.**

*(Exact Name of Registrant as Specified in Its Charter)*

**Delaware**

*(State or Other Jurisdiction of Incorporation or Organization)*

**84-1368850**

*(I.R.S. Employer Identification No.)*

**303 George Street, Suite 420, New Brunswick, New Jersey**

*(Address of Principal Executive Offices)*

**08901**

*(Zip Code)*

**(732) 296-8400**

*(Registrant's Telephone Number, Including Area Code)*

Securities registered under Section 12(b) of the Exchange Act:

**Title of each class**

*Common Stock, \$0.01 par value per share.*

**Name of each exchange on which registered**

*American Stock Exchange*

Securities registered under Section 12(g) of the Exchange Act:

*None.*

Check whether the issuer: (1) filed all reports required to be filed by Section 13 or 15(d) of the Securities Exchange Act during the past 12 months (or for such shorter period that the registrant was required to file such reports), and (2) has been subject to such filing requirements for the past 90 days.

☒ **yes**      ☐ **no**

☒ Check if there is no disclosure of delinquent filers in response to Item 405 of Regulation S-B contained in this form, and no disclosure will be contained, to the best of registrant's knowledge, in definitive proxy or information statements incorporated by reference in Part III of this Form 10-KSB or any amendment to this Form 10-KSB.

State issuer's revenues for fiscal year ended June 30, 2003: \$10,000

State the aggregate market value of the voting common stock held by non-affiliates of the Registrant: \$24,974,321 at September 19, 2003 based on the closing sales price on that date.

Indicate the number of shares outstanding of each of the Registrant's classes of common stock, as of September 19, 2003:

<u>Class</u>	<u>Number of Shares</u>
Common Stock, \$0.01 par value	11,880,045

Transitional Small Business Disclosure Format

☐ **yes**      ☒ **no**

The following documents are incorporated by reference into the Annual Report on Form 10-KSB: Portions of the registrant's definitive Proxy Statement for its 2003 Annual Meeting of Stockholders are incorporated by reference into Part III of this Report.



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## Part I

### Item 1 : Business.

## Business of the Company

### Our Business

The primary business of Senesco Technologies, Inc., a Delaware corporation incorporated in 1999, and its wholly-owned subsidiary, Senesco, Inc., a New Jersey corporation incorporated in 1998, collectively referred to as "Senesco," "we," "us" or "our," is the research, development and commercial exploitation of a potentially significant platform technology involving the identification and characterization of genes that we believe control the programmed cell death of plant cells, also known as senescence, and mammalian cells, also known as apoptosis.

### Agricultural Applications

Our technology goals for agricultural applications are to: (i) extend the shelf life of perishable plant products; (ii) produce larger and leafier crops; (iii) increase yield in horticultural and agronomic crops; and (iv) reduce the harmful effects of environmental stress.

Senescence is the natural aging of plant tissues. Loss of cellular membrane integrity is an early event during the senescence of all plant tissues that prompts the deterioration of fresh flowers, fruits and vegetables. This loss of integrity, which is attributable to the formation of lipid metabolites in membrane bilayers that phase-separate, causes the membranes to become leaky. A decline in cell function ensues, leading to deterioration and eventual death, or spoilage, of the tissue. A delay in senescence increases shelf life and extends the plant's growth time-frame, which allows the plant to devote more time to the photosynthetic process. We have shown that the additional energy gained during this period leads directly to increased seed production, and therefore increases crop yield. Seed production is a vital agricultural function. For example, oil-bearing crops store oil in their seeds. We have also shown that this reduction in premature senescence leads to larger plants, with increased biomass, and more leafy crops. Most recently, we have demonstrated that reducing premature senescence results in crops which exhibit increased resilience to water deprivation and salt stress. Drought and salt resistant crops may ultimately be more cost effective due to reduced loss in the field and less time spent on crop management.

The technology presently utilized by the industry for increasing the shelf life in certain flowers, fruits and vegetables relies primarily on reducing ethylene biosynthesis, and hence only has application to the limited number of plants that are ethylene-sensitive. Our research focuses on the discovery and development of certain gene technologies, which are designed to confer positive traits on fruits, flowers, vegetables, forestry species and agronomic crops. To date, we have isolated and characterized the senescence-induced lipase gene, deoxyhypusine synthase, or DHS, gene and Factor 5A gene in certain species of plants. Our goal is to inhibit the expression of, or silence, these genes to delay senescence, which will in turn extend shelf life, increase biomass, increase yield and increase resistance to environmental stress, thereby demonstrating proof of concept in each category of crop. We have licensed this technology to various strategic partners and have entered into a joint venture, and we intend to continue to license this technology to additional strategic partners and/or enter into additional joint ventures.

We are currently working with lettuce, melon, tomato, canola, *Arabidopsis* (a model plant that produces oil in a manner similar to canola), banana, alfalfa and certain species of trees, and have obtained proof of concept for the lipase, DHS and Factor 5A genes in several of these plants. Also, we have initiated field trials of lettuce and bananas with our respective partners. These field trials have shown that our technology effectively reduces browning in cut lettuce and extend the shelf life of banana fruit by 100%. Near-term research and development initiatives include: (i) silencing or reducing the expression of DHS and Factor 5A genes in these plants; and (ii) propagation and testing of plants with our silenced genes. We have also completed our research and development initiative in carnation flower, which yielded a 100% increase in shelf life through the inhibition of the DHS reaction.

## Human Health Applications

### *Inhibiting Apoptosis*

We have also isolated the DHS and programmed cell death Factor 5A genes in mammalian tissue. Our preliminary research reveals that DHS and Factor 5A genes regulate apoptosis in animal and human cells. The mammalian apoptosis isoforms of the DHS and Factor 5A genes were first isolated from rat ovarian tissue, specifically the corpus luteum, which undergoes apoptosis naturally at the end of the female reproductive cycle. The sequences of the mammalian apoptosis DHS and Factor 5A genes are very similar to those of the corresponding plant genes in keeping with their common functions. Moreover, inhibiting the function of the Factor 5A gene in rats has been shown to inhibit the induction of corpus luteum apoptosis. Apoptosis, as manifested by DNA fragmentation, was clearly detectable in super-ovulated control female rats within three hours of treatment with prostaglandin F2a. This hormone induces corpus luteum apoptosis naturally in mammals, but in super-ovulated animals in which the activation of Factor 5A had been inhibited, DNA fragmentation reflecting apoptosis was not apparent. Thus, just as these genes can be used to delay senescence in plants, this experiment shows that they may also be used to inhibit apoptosis in mammals. We believe that our technology has potential application as a means of controlling a broad range of diseases that are attributable to premature apoptosis. Apoptotic diseases include neurodegenerative diseases, such as Alzheimer's disease and Parkinson's disease, retinal diseases, such as glaucoma and macular degeneration, heart disease, stroke and rheumatoid arthritis. We have commenced pre-clinical research on heart tissue samples from both ischemic and non-ischemic patients with heart disease and have found that Factor 5A is significantly upregulated in ischemic heart tissue. Ischemia is the restriction of blood supply to the heart that can result in heart attacks and damage to heart tissue. We have also found that upregulation of Factor 5A correlates to upregulation of two key inflammatory cytokines, Interleukin-1 and Interleukin-18, which are pro-inflammatory molecules and are indicated in numerous apoptotic diseases. In addition, we have initiated cell-line studies for applications of our technology to glaucoma and surface ocular diseases and on liver cell-lines.

Factor 5A appears to control expression of the suite of proteins required for apoptosis. Such proteins include p53, interleukins, caspases, and tumor necrosis factor (TNF-alpha). Expression of these cell death proteins is required for the execution of apoptosis. We have found that blocking Factor 5A by treatment with siRNA, or antisense oligonucleotides, inhibits the expression of p53, a major cell death transcription factor that in turn controls the formation of a suite of other cell death proteins. In addition, down-regulation of Factor 5A up-regulates Bcl-2, a major suppressor of apoptosis. Blocking Factor 5A also reduces the number of cells undergoing apoptosis.

### ***Accelerating Apoptosis***

Conversely, we have also established in pre-clinical studies that our apoptosis Factor 5A gene is able to kill cancer cells. Tumors arise when cells that have been targeted to undergo apoptosis are unable to do so because of an inability to activate the apoptotic pathways. When our apoptosis Factor 5A gene was introduced into RKO cells, a cell line derived from human carcinoma and COS7 cells, an immortal, cancer-like cell line from monkeys, virtually all cells expressing the Factor 5A gene underwent apoptosis. Moreover, just as the senescence Factor 5A gene appears to facilitate expression of the entire suite of genes required for programmed cell death in plants, the apoptosis Factor 5A gene appears to regulate expression of a suite of genes required for programmed cell death in mammals. For example, over-expression of apoptosis Factor 5A up regulates p53, an important tumor suppressor gene that promotes apoptosis in cells with damaged DNA and also down-regulates Bcl 2, a suppressor of apoptosis. Because the Factor 5A gene appears to function at the initiation point of the apoptotic pathways, we believe that our gene technology has potential application as a means of combating a broad range of cancers and have initiated studies with invivo cancer models to determine Factor 5A's ability to shrink human tumors grafted onto mice.

### **Agricultural Target Markets**

Our technology embraces crops that are reproduced both through seeds and propagation, which are the only two means of commercial crop reproduction. Propagation is a process whereby the plant does not produce fertile seeds and must reproduce through cuttings from the parent plant which are planted and become new plants. In order to address the complexities associated with marketing and distribution in the worldwide market, we have adopted a multi-faceted commercialization strategy, in which we plan to enter into licensing agreements or other strategic relationships with a variety of companies or other entities on a crop-by-crop basis.

In November 2001, we entered into a worldwide exclusive development and license agreement, referred to herein as the Harris Moran License, with Harris Moran Seed Company to commercialize our technology in lettuce and certain melons for an indefinite term, unless terminated by either party pursuant to the terms of the agreement. To date, the development steps performed by Harris Moran and us have all been completed on schedule in accordance with the protocol set forth in the Harris Moran License. There has been extensive characterization of our genes in lettuce in a laboratory setting. The initial lab work has produced genetically modified seed under greenhouse containment, which has been followed by substantial field trials for evaluation. These field trials represent a vital step in the process necessary to develop a commercial product. Harris Moran has undertaken additional field trials of our technology in 2003.

In June 2002, we entered into a three-year worldwide exclusive development and option agreement, referred to herein as the ArborGen Agreement, with ArborGen, LLC to develop our technology in certain species of trees. The ArborGen Agreement also grants ArborGen an option to acquire an exclusive worldwide license to commercialize our technology in various other forestry products.

In September 2002, we entered into an exclusive development and license agreement, referred to herein as the Cal/West License, with Cal/West Seeds to commercialize our technology in certain varieties of alfalfa. The Cal/West License will continue until the expiration of the patents set forth in the agreement, unless terminated earlier by either party pursuant to the terms of the agreement. The Cal/West License also grants Cal/West an exclusive option to develop our technology in various other forage crops.

In October 2002, we entered into a non-exclusive sales representative agreement to market and promote our technology in the People's Republic of China. Under the terms of the agreement, we will pay a commission to the sales representative based on a percentage of the gross license fees we receive. With the assistance of the sales representative, in November 2002, we executed a non-binding letter of intent with the Tianjin Academy of Agricultural Sciences for the exclusive use of our technology in a variety of fruit and vegetable crops in China. We are currently in discussions with representatives of the Academy as well as government representatives from the city of Tianjin and from a central government department of China. We have also initiated discussions with two Chinese biotechnology companies. Such a company would be necessary to secure the financing for the proposed agreement with the Academy and to commercialize the seeds developed with our technology under the proposed license. Due to the size and scope of the proposed agreement and the complexities of doing business in China, and in light of the recent SARS health crisis that occurred in China, we anticipate that our ongoing discussions will continue over the course of the next several months.

## Human Health Target Markets

We believe that our gene technology could have broad applicability in the human health field, by either inhibiting or accelerating apoptosis. Inhibiting apoptosis may be useful in preventing or treating a wide range of diseases attributed to premature apoptosis, including stroke, heart disease, rheumatoid arthritis, retinal diseases such as glaucoma and macular degeneration, and neurodegenerative diseases such as Alzheimer's disease and Parkinson's disease. Accelerating apoptosis may be useful in treating certain forms of cancer because the body's immune system is not able to force cancerous cells to undergo apoptosis.

## Competition

Competitors that are presently attempting to distribute their technology have generally utilized one of the following distribution channels: (i) licensing technology to major marketing and distribution partners; (ii) entering into strategic alliances; or (iii) developing in-house production and marketing capabilities. In addition, some competitors are owned by established distribution companies, which alleviates the need for strategic alliances, while others are attempting to create their own distribution and marketing channels.

Our competitors in the field of delaying plant senescence are companies that develop and produce transformed plants in which ethylene biosynthesis has been silenced. Such companies include, among others: Paradigm Genetics; Bayer Crop Science; Mendel Biotechnology; Renessen LLC; Exelixis Plant Sciences, Inc.; PlantGenix, Inc.; Syngenta International AG; and Eden Bioscience.

Companies working in the field of apoptosis research include, among others: OSI Pharmaceuticals, Inc.; Idun Pharmaceuticals; Novartis; Introgen Therapeutics, Inc.; Genta, Inc.; and Vertex Pharmaceuticals, Inc.

## Marketing Program

We presently license our technology to agricultural companies capable of incorporating our technology into crops grown for commercial agriculture. We anticipate revenues from these relationships in the form of licensing fees and royalties from our partners. In addition, we anticipate payments from our partners upon our achievement of certain research and development benchmarks. This commercialization strategy allows us to generate revenues at various stages of product development, while ensuring that our technology is incorporated into a wide variety of crops. Our optimal partners combine the technological know-how to incorporate our technology into their product line along with the ability to successfully market the enhanced final product, thereby eliminating the need for us to develop and maintain a sales force. Based upon our commercialization strategy, we anticipate that there may be a significant period of time before plants enhanced using our technology reach consumers. Thus, we have not begun to actively market our technology directly to consumers, but rather, we have sought to establish ourselves within the industry through presentations at industry conferences, our website and direct communication with prospective licensees.

## Research Program

Our subsequent research and development initiatives include: (i) further developing the DHS and Factor 5A gene technology in lettuce, melon and banana, and implementing the technology in a variety of other commercially important agricultural crops such as tomato, alfalfa and trees; (ii) testing the resultant crops for new beneficial traits such as increased yield and increased tolerance to environmental stress; and (iii) assessing the role of the DHS and Factor 5A genes in human diseases through the accumulation of additional data from pre-clinical experiments with cell lines, mammalian tissue and animal models. Our strategy for agriculture focuses on various plants to allow flexibility that will accommodate different plant reproduction strategies among the different sectors of the broad agricultural and horticultural markets.

Our research and development is performed by third party researchers at our direction, pursuant to various research and license agreements. The primary research and development effort takes place at the University of Waterloo in Ontario, Canada, where the technology was developed, and at the University of Colorado. Additional research and development is performed by our partners in connection with the Harris Moran License, the ArborGen Agreement, the Cal/West License and the Anawah Agreement, as well as through the joint venture with Rahan Meristem Ltd. in Israel.

## Joint Venture

On May 14, 1999, we entered into a joint venture agreement with Rahan Meristem Ltd., referred to herein as Rahan Meristem, an Israeli company engaged in the worldwide export marketing of banana germ-plasm, referred to herein as the Rahan Joint Venture. Rahan Meristem accounts for approximately 10% of the worldwide export of banana seedlings. We have contributed, by way of a limited, exclusive, worldwide license to the Rahan Joint Venture, access to our technology, discoveries, inventions and know-how, whether patentable or otherwise, pertaining to plant genes and their cognate expressed proteins that are induced during senescence for the purpose of developing, on a joint basis, genetically enhanced banana plants which will result in a banana that has a longer shelf life. Rahan Meristem has contributed its technology, inventions and know-how with respect to banana plants. Rahan Meristem and Senesco equally own the Rahan Joint Venture.

The Rahan Joint Venture applied for and received a conditional grant that totals approximately \$340,000, which constitutes 50% of the Rahan Joint Venture's research and development budget over the four-year period, ending on May 31, 2003, from the Israel - U.S. Binational Research and Development Foundation, or BIRD Foundation, referred to herein as the BIRD Grant. Such grant, along with certain royalty payments, shall only be repaid to the BIRD Foundation upon the commercial success of the Rahan Joint Venture's technology. The commercial success is measured based upon certain benchmarks and/or milestones achieved by the Rahan Joint Venture. The Rahan Joint Venture reports these benchmarks periodically to the BIRD Foundation.

All aspects of the Rahan Joint Venture's research and development initiative are proceeding on time, or are ahead of the original schedule laid out at the inception of the Rahan Joint Venture. Both the DHS and lipase genes have been identified and isolated in banana, and the Rahan Joint Venture is currently in the process of silencing these genes. The resultant plants are being tested in field trials to assess extended shelf life of banana fruit and enhanced tolerance to environmental stress. The trials indicated that Senesco's proprietary technology extends the shelf life of the banana fruit up to 100%, while allowing the banana fruit to ripen normally.

Consistent with our commercialization strategy, we intend to attract other companies interested in strategic partnerships, joint ventures or licensing our technology. The Harris Moran License, the ArborGen Agreement, the Cal/West License and the Rahan Joint Venture are the first successes toward the execution of our strategy.

## Intellectual Property

### *Research and Development*

The inventor of our technology, John E. Thompson, Ph.D., is the Associate Vice-President, Research and former Dean of Science at the University of Waterloo in Ontario, Canada, and is our Executive Vice President of Research and Development. Dr. Thompson is also one of our directors and owns 4.8% of the outstanding shares of our common stock, \$0.01 par value, as of June 30, 2003. On September 1, 1998, we entered into, and subsequently have extended, a research and development agreement with the University of Waterloo and Dr. Thompson as the principal inventor, referred to herein as the First Research and Development Agreement. The First Research and Development Agreement is currently set to expire on August 31, 2004. Also, effective May 1, 2002, we entered into another research and development agreement, for a period of one year, with the University of Waterloo and Dr. Thompson, referred to herein as the Second Research and Development Agreement. The First Research and Development Agreement and the Second Research and Development Agreement are collectively referred to herein as the Research and Development Agreements. The Research and Development Agreements provide that the University of Waterloo will perform research and development under our direction, and we will pay for the cost of this work and make certain payments to the University of Waterloo. In return for payments made under the Research and Development Agreements, we have all rights to the intellectual property derived from the research.

Effective May 1, 1999, we entered into a consulting agreement for research and development with Dr. Thompson. On July 1, 2001, we renewed the consulting agreement with Dr. Thompson for an additional three-year term as provided for under the terms and conditions of the agreement. The agreement shall automatically renew for an additional three-year term, unless either of the parties provides the other with written notice within six months prior to the end of the term.

In September 2002, we entered into an exclusive worldwide collaboration agreement, referred to herein as the Anawah Agreement, with Anawah, Inc. (formerly Tilligen, Inc.) to establish a research alliance to develop and commercialize certain genetically enhanced species of produce. Under the Anawah Agreement, Anawah will license its proprietary technology to us and will also perform certain transformation functions in order to develop seeds in certain species of produce that have been enhanced with our technology. The Anawah Agreement will continue until the expiration of the patents set forth in the agreement, unless terminated earlier by either party pursuant to the terms of the agreement.

For the fiscal year ended June 30, 2003, approximately 40% of our research and development expenses were incurred on mammalian research applications. Since our inception, the proportion of research and development expenses on mammalian applications has increased, as compared to plant applications. This change is primarily due to the fact that our research focus on mammalian applications has increased and some of our research costs for plant applications have shifted to our research partners.

Our future research and development program focuses on the discovery and development of certain gene technologies which intend to extend shelf life and to confer other positive traits on fruits, flowers, vegetables and agronomic row crops and on expanding our mammalian research programs. Over the next twelve months, we plan to continue the following research and development initiatives: (i) the development of plants that possess new beneficial traits, such as protection against drought, with emphasis on lettuce, melon, corn, forestry products, alfalfa and the other species described below with several entities, including Anawah; (ii) the development of enhanced lettuce and melon plants through the Harris Moran License; (iii) the development of enhanced trees through the ArborGen Agreement; (iv) the development of enhanced alfalfa through the Cal/West License; (v) the isolation of new genes in the Arabidopsis, tomato, lettuce, soybean, canola seed and melon plants, among others, at the University of Waterloo; (vi) the development of enhanced banana plants through the Rahan Joint Venture; (vii) the transformation of seed enhanced with our technology; and (viii) assessing the function of the DHS and Factor 5A genes in human diseases at the University of Waterloo and the University of Colorado. We may further expand our research and development program beyond the initiatives listed above.

#### ***Patent and Patent Applications***

On March 25, 2003, we were granted Patent No. 6,538,182, entitled "DNA Encoding a Plant Deoxyhypusine Synthase, A Plant Eukaryotic Initiation Factor 5A, Transgenic Plants and A Method For Controlling Senescence and Programmed Cell Death in Plants", from the United States Patent and Trademark Office, or PTO. This patent represents successful prosecution of some of the claims set forth in the Second Patent Application, as defined below. Further divisional applications which cover other claims from the Second Patent Application are currently being reviewed by the PTO.

We have three major families of patent applications in process domestically and internationally. The first family of applications is based on the application entitled "DNA Encoding a Plant Lipase, Transgenic Plants and a Method for Controlling Senescence in Plants", referred to herein as the First Patent Application, which was filed in February 1999. The second family of applications is based on the application entitled "DNA Encoding A Plant Deoxyhypusine Synthase, Transgenic Plants and a Method for Controlling Cell Death in Plants", referred to herein as the Second Patent Application, which was filed in July 1999. We have filed several new



Continuations in Part and Divisional Patent Applications on both the First Patent Application and the Second Patent Application to protect our intellectual property pertaining to new technological developments. We have also filed one additional application, referred to herein as the Third Patent Application, followed by a substantial Continuation in Part, in addition to those listed above, which pertain to the possible mammalian applicability of our technology. The Third Patent Application is focused on suppressing cell death as a prospective therapy for a wide range of diseases and the Continuation in Part focuses on accelerating cell death as a means of treating cancer. We have filed a second Continuation in Part on the Third Patent Application based on data we gathered in studies of ischemic heart tissue. We have also filed a third Continuation in Part on the Third Patent Application based on data which correlates cytokine expression to Factor 5A. We intend to continue our strategy of enhancing these new patent applications through the addition of data as it is collected.

We have broadened the scope of our intellectual property protection by utilizing the Patent Cooperation Treaty to facilitate international filing and prosecution of the Patent Applications. The First Patent Application was published through the Patent Cooperation Treaty in August 2000, and then between August 2001 and October 2001, was filed in Australia, Canada, China, Japan, Korea, New Zealand and Europe through the European Patent Office, which has twenty member states. Israel and Mexico are the last remaining countries in which we have opted to file that have yet to issue a filing date. The Patent Cooperation Treaty published the Second Patent Application in January 2001.

## Government Regulation

At present, the U.S. federal government regulation of biotechnology is divided among three agencies: (i) the U.S. Department of Agriculture regulates the import, field-testing and interstate movement of specific types of genetic engineering that may be used in the creation of transformed plants; (ii) the Environmental Protection Agency regulates activity related to the invention of plant pesticides and herbicides, which may include certain kinds of transformed plants; and (iii) the Food and Drug Administration regulates foods derived from new plant varieties. The FDA requires that transformed plants meet the same standards for safety that are required for all other plants and foods in general. Except in the case of additives that significantly alter a food's structure, the FDA does not require any additional standards or specific approval for genetically engineered foods but expects transformed plant developers to consult the FDA before introducing a new food into the market place.

We believe that our current activities, which to date have been confined to research and development efforts, do not require licensing or approval by any governmental regulatory agency. However, we, or our licensees, may be required to obtain such licensing or approval from governmental regulatory agencies prior to the commercialization of our genetically transformed plants and mammalian technology.

## Employees

In addition to the scientists performing funded research for us at the University of Waterloo and the University of Colorado, as of June 30, 2003 and currently, we have four employees and one consultant, four of whom are executive officers and are involved in our management. We may hire additional employees over the next twelve months to meet the needs created by possible expansion of our operations.

The officers are assisted by a Scientific Advisory Board that consists of prominent experts in the fields of plant and mammalian cell biology. Alan Bennett, Ph.D., who serves as the Chairman of the Scientific Advisory Board, is the Executive Director of the Office of Technology Transfer at the University of California. His research interests include: the molecular biology of tomato fruit development and ripening; the molecular basis of membrane transport; and cell wall disassembly. In addition to his service on the Scientific Advisory Board, we utilize Dr. Bennett as a consultant experienced in plant transformation. Charles A. Dinarello, M.D., who serves as a member of the Scientific Advisory Board, is a Professor of Medicine at the University of Colorado School of Medicine, a member of the U.S. National Academy of Sciences and the author of over 500 published research articles. In addition to his active academic research career, Dr. Dinarello has held advisory positions with two branches of the National Institutes of Health and positions on the Board of Governors of both the Weizmann Institute and Ben Gurion University. Russell L. Jones, Ph.D., who serves as a member of the Scientific Advisory Board, is a professor at the University of California, Berkeley and an expert in plant cell biology and cell death. Dr. Jones is also an editor of *Planta*, *Annual Review of Plant Physiology* and *Plant Molecular Biology* as well as *Research Notes in Plant Science*. Additionally, he has held positions on the editorial boards of *Plant Physiology* and *Trends in Plant Science*.

Furthermore, pursuant to the Research and Development Agreements, the majority of our research and development activities are conducted at the University of Waterloo under the supervision of Dr. Thompson. We utilize the University's substantial research staff including graduate and post-graduate researchers.

We have also undertaken pre-clinical apoptosis research at the University of Colorado under the supervision of Dr. Dinarello. This research is performed pursuant to specific project proposals that have agreed-upon research outlines, timelines and budgets. We may also contract research to additional university laboratories or to other companies in order to advance the development of our technology.

## Safe Harbor Statement

The statements contained in this Annual Report on Form 10-KSB that are not historical facts are forward-looking statements within the meaning of Section 21E of the Securities Exchange Act of 1934, as amended, and the Private Securities Litigation Reform Act of 1995. Such forward-looking statements may be identified by, among other things, the use of forward-looking terminology such as "believes," "expects," "may," "will," "should," or "anticipates" or the negative thereof or other variations thereon or comparable terminology, or by discussions of strategy that involve risks and uncertainties. In particular, our statements regarding the anticipated growth in the markets for our technologies, the continued advancement of our research, the approval of our Patent Applications, the possibility of governmental approval in order to sell or offer for sale to the general public a genetically engineered plant or plant product, the successful implementation of our commercialization strategy, including the success of the Harris Moran License, the ArborGen Agreement, the Cal/West License, the Anawah Agreement and the Research and Development Agreements, the successful implementation of the Rahan Joint Venture, the conversion of the letter of intent with the Tianjin Academy of Agricultural Sciences into an executed agreement, statements relating to our Patent Applications, the anticipated longer term growth of our business, and the timing of the projects and trends in future operating performance are examples of such forward-looking statements. The forward-

looking statements include risks and uncertainties, including, but not limited to, the timing of revenues due to the variability in size, scope and duration of research projects, regulatory delays, research study results which lead to cancellations of research projects, and other factors, including general economic conditions and regulatory developments, not within our control. The factors discussed herein and expressed from time to time in our filings with the Securities and Exchange Commission could cause actual results and developments to be materially different from those expressed in or implied by such statements. The forward-looking statements are made only as of the date of this filing, and we undertake no obligation to publicly update such forward-looking statements to reflect subsequent events or circumstances.

## **Factors That May Affect Our Business, Future Operating Results and Financial Condition**

The more prominent risks and uncertainties inherent in our business are described below. However, additional risks and uncertainties may also impair our business operations. If any of the following risks actually occur, our business, financial condition or results of operations may suffer.

### ***We have a limited operating history and have incurred substantial losses and expect future losses.***

We are a developmental stage biotechnology company with a limited operating history and limited assets and capital. We have incurred losses each year since inception and have an accumulated deficit of \$9,496,659 at June 30, 2003. We have generated minimal revenues by licensing certain of our technology to companies willing to share in our development costs. However, our technology may not be ready for widespread commercialization for several years. We expect to continue to incur losses over the next two to three years because we anticipate that our expenditures on research and development, commercialization and administrative activities will significantly exceed our revenues during that period. We cannot predict when, if ever, we will become profitable.

### ***We depend on a single principal technology.***

Our primary business is the development and commercial exploitation of technology to identify, isolate, characterize and silence genes which control the aging and death of cells in plants and mammals. Our future revenue and profitability critically depend upon our ability to successfully develop senescence and apoptosis gene technology and later market and license such technology at a profit. We have conducted experiments on certain crops with favorable results and have conducted certain preliminary cell-line experiments, which have provided us with data upon which we have designed additional research programs. However, we cannot give any assurance that our technology will be commercially successful or economically viable for all crops or mammalian applications.

In addition, no assurance can be given that adverse consequences might not result from the use of our technology such as the development of negative effects on plants or mammals or reduced benefits in terms of crop yield or protection. Our failure to obtain market acceptance of our technology or to successfully commercialize such technology or develop a commercially viable product would have a material adverse effect on our business.

*We outsource all of our research and development activities.*

We rely on third parties to perform all of our research and development activities. Our primary research and development efforts take place at the University of Waterloo in Ontario, Canada, where our technology was developed, at the University of Colorado, at Anawah, Inc., formerly known as Tilligen, Inc., and with our commercial partners. At this time, we do not have the internal capabilities to perform our research and development activities. Accordingly, the failure of third-party research partners, such as the University of Waterloo, to perform under agreements entered into with us, or our failure to renew important research agreements with these third parties, would have a material adverse effect on our ability to develop and exploit our technology.

*We have significant future capital needs.*

As of June 30, 2003, we had cash and highly-liquid investments valued at \$2,419,225 and working capital of \$2,285,464. We believe that we can operate according to our current business plan for at least twelve months using our available reserves. To date, we have generated minimal revenues and anticipate that our operating costs will exceed any revenues generated over the next several years. Therefore, we anticipate that we will be required to raise additional capital in the future in order to operate according to our current business plan. We may require additional funding in less than twelve months, and additional funding may not be available on favorable terms, if at all. In addition, in connection with such funding, if we need to issue more equity securities than our certificate of incorporation currently authorizes, or more than 20% of the shares of our common stock outstanding, we may need stockholder approval. If stockholder approval is not obtained or if adequate funds are not available, we may be required to curtail operations significantly or to obtain funds through arrangements with collaborative partners or others that may require us to relinquish rights to certain of our technologies, product candidates, products or potential markets. Investors may experience dilution in their investment from future offerings of our common stock. For example, if we raise additional capital by issuing equity securities, such an issuance would reduce the percentage ownership of existing stockholders. In addition, assuming the exercise of all options and warrants granted, as of June 30, 2003, we had 12,041,802 shares of common stock authorized but unissued, which may be issued from time to time by our board of directors without stockholder approval. Furthermore, we may need to issue securities that have rights, preferences and privileges senior to our common stock. Failure to obtain financing on acceptable terms would have a material adverse effect on our liquidity. Since inception, we have financed all of our operations through private equity financings. Our future capital requirements depend on numerous factors, including:

- the scope of our research and development;
- our ability to attract business partners willing to share in our development costs;
- our ability to successfully commercialize our technology;
- competing technological and market developments;
- our ability to enter into collaborative arrangements for the development, regulatory approval and commercialization of other products; and
- the cost of filing, prosecuting, defending and enforcing patent claims and other intellectual property rights.

*Our business depends on our patents, licenses and proprietary rights and the enforcement of these rights.*

As a result of the substantial length of time and expense associated with developing products and bringing them to the marketplace in the agricultural and biotechnology industries, obtaining and maintaining patent and trade secret protection for technologies, products and processes is of vital importance. Our success will depend in part on several factors, including, without limitation:

- our ability to obtain patent protection for technologies, products and processes;
- our ability to preserve trade secrets; and
- our ability to operate without infringing the proprietary rights of other parties both in the United States and in foreign countries.

We have been issued one patent by the PTO. We have also filed patent applications in the United States for our technology, which technology is vital to our primary business, as well as several Continuations in Part on these patent applications. Our success depends in part upon the enforcement of our patent rights and whether patents are granted for our pending patent applications.

Furthermore, although we believe that our technology is unique and will not violate or infringe upon the proprietary rights of any third party, there can be no assurance that such claims will not be made or if made, could be successfully defended against. If we do not obtain and maintain patent protection, we may face increased competition in the United States and internationally, which would have a material adverse effect on our business.

Since patent applications in the United States are maintained in secrecy until patents are issued, and since publication of discoveries in the scientific and patent literature tend to lag behind actual discoveries by several months, we cannot be certain that we were the first creator of the inventions covered by our pending patent applications or that we were the first to file patent applications for these inventions.

In addition, among other things, we cannot guarantee that:

- our patent applications will result in the issuance of patents;
- any patents issued or licensed to us will be free from challenge and that if challenged, would be held to be valid;
- any patents issued or licensed to us will provide commercially significant protection for our technology, products and processes;
- other companies will not independently develop substantially equivalent proprietary information which is not covered by our patent rights;
- other companies will not obtain access to our know-how;
- other companies will not be granted patents that may prevent the commercialization of our technology; or
- we will not require licensing and the payment of significant fees or royalties to third parties for the use of their intellectual property in order to enable us to conduct our business.

If any relevant claims of third-party patents which are adverse to us are upheld as valid and enforceable, we could be prevented from commercializing our technology or could be required to obtain licenses from the owners of such patents. We cannot guarantee that such licenses would be available or, if available, would be on acceptable terms.

We could become involved in infringement actions to enforce and/or protect our patents. Regardless of the outcome, patent litigation is expensive and time consuming and would distract our management from other activities.

The laws of some foreign countries do not protect proprietary rights to the same extent as the laws of the United States, and many companies have encountered significant problems and costs in protecting their proprietary rights in these foreign countries.

Patent law is still evolving relative to the scope and enforceability of claims in the fields in which we operate. We are like most biotechnology companies in that our patent protection is highly uncertain and involves complex legal and technical questions for which legal principles are not yet firmly established. In addition, if issued, our patents may not contain claims sufficiently broad to protect us against third parties with similar technologies or products, or provide us with any competitive advantage.

The PTO and the courts have not established a consistent policy regarding the breadth of claims allowed in biotechnology patents. The allowance of broader claims may increase the incidence and cost of patent interference proceedings and the risk of infringement litigation. On the other hand, the allowance of narrower claims may limit the value of our proprietary rights.

Our success also depends upon know-how, unpatentable trade secrets, and the skills, knowledge and experience of our scientific and technical personnel. As a result, we require all employees to agree to a confidentiality provision that prohibits the disclosure of confidential information to anyone outside of our company, during the term of employment and thereafter. We also require all employees to disclose and assign to us the rights to their ideas, developments, discoveries and inventions. We also attempt to enter into similar agreements with our consultants, advisors and research collaborators. We cannot guarantee adequate protection for our trade secrets, know-how or other proprietary information against unauthorized use or disclosure. We occasionally provide information to research collaborators in academic institutions and request the collaborators to conduct certain tests. We cannot guarantee that the academic institutions will not assert intellectual property rights in the results of the tests conducted by the research collaborators, or that the academic institutions will grant licenses under such intellectual property rights to us on acceptable terms, if at all. If the assertion of intellectual property rights by an academic institution is substantiated, and the academic institution does not grant intellectual property rights to us, these events could have a material adverse effect on our business and financial results.

***We will have to properly manage our growth.***

As our business grows, we may need to add employees and enhance our management, systems and procedures. We will need to successfully integrate our internal operations with the operations of our marketing partners, manufacturers, distributors and suppliers to produce and market commercially viable products. Although we do not presently intend to conduct research and development activities in-house, we may undertake those activities in the future. Expanding our business will place a significant burden on our management and operations. Our failure to effectively respond to changes brought about by our growth may have a material adverse effect on our business and financial results.

*We have no marketing or sales history and depend on third-party marketing partners.*

We have no history of marketing, distributing or selling biotechnology products and we are relying on our ability to successfully establish marketing partners or other arrangements with third parties to market, distribute and sell a commercially viable product both here and abroad. Our business plan also envisions creating strategic alliances to access needed commercialization and marketing expertise. We may not be able to attract qualified sub-licensees, distributors or marketing partners, and even if qualified, such marketing partners may not be able to successfully market agricultural products or human health applications developed with our technology. If we fail to successfully establish distribution channels, or if our marketing partners fail to provide adequate levels of sales, we will not be able to generate significant revenue.

*We depend on partners to develop and market products.*

In its current state of development, our technology is not ready to be marketed to consumers. We intend to follow a multi-faceted commercialization strategy that involves the licensing of our technology to business partners for the purpose of further technological development, marketing and distribution. We are seeking business partners who will share the burden of our development costs while our technology is still being developed, and who will pay us royalties when they market and distribute products incorporating our technology upon commercialization. The establishment of joint ventures and strategic alliances may create future competitors, especially in certain regions abroad where we do not pursue patent protection. If we fail to establish beneficial business partners and strategic alliances, our growth will suffer and the continued development of our technology may be harmed.

*Competition in the agricultural and biotechnology industries is intense and technology is changing rapidly.*

Many agricultural and biotechnology companies are engaged in research and development activities relating to senescence and apoptosis. The market for plant protection and yield enhancement products is intensely competitive, rapidly changing and undergoing consolidation. We may be unable to compete successfully against our current and future competitors, which may result in price reductions, reduced margins and the inability to achieve market acceptance for products containing our technology. Our competitors in the field of plant senescence gene technology are companies that develop and produce transgenic plants and include major international agricultural companies, specialized biotechnology companies, research and academic institutions and, potentially, our joint venture and strategic alliance partners. Such companies include: Paradigm Genetics; Bayer Crop Science; Mendel Biotechnology; Renessen LLC; Exelixis Plant Sciences, Inc.; PlantGenix, Inc.; Syngenta International AG; and Eden Bioscience, among others. Some of the companies involved in apoptosis research include: OSI Pharmaceuticals, Inc.; Idun Pharmaceuticals; Novartis; Introgen Therapeutics, Inc.; Genta, Inc.; and Vertex Pharmaceuticals, Inc. Many of these competitors have substantially greater financial, marketing, sales, distribution and technical resources than us and have more experience in research and development, clinical trials, regulatory matters, manufacturing and marketing. We anticipate increased competition in the future as new companies enter the market and new technologies become available. Our technology may be rendered obsolete or uneconomical by technological advances or entirely different approaches developed by one or more of our competitors.

*Our business is subject to various government regulations.*

At present, the U.S. federal government regulation of biotechnology is divided among three agencies: (i) the USDA regulates the import, field testing and interstate movement of specific types of genetic engineering that may be used in the creation of transgenic plants; (ii) the EPA regulates activity related to the invention of plant pesticides and herbicides, which may include certain kinds of transgenic plants; and (iii) the FDA regulates foods derived from new plant varieties. The FDA requires that transgenic plants meet the same standards for safety that are required for all other plants and foods in general. Except in the case of additives that significantly alter a food's structure, the FDA does not require any additional standards or specific approval for genetically engineered foods, but expects transgenic plant developers to consult the FDA before introducing a new food into the marketplace. Use of our technology, if developed for human health applications, will also be subject to FDA regulation.

We believe that our current activities, which to date have been confined to research and development efforts, do not require licensing or approval by any governmental regulatory agency. However, federal, state and foreign regulations relating to crop protection products and human health applications developed through biotechnology are subject to public concerns and political circumstances, and, as a result, regulations have changed and may change substantially in the future. Accordingly, we may become subject to governmental regulations or approvals or become subject to licensing requirements in connection with our research and development efforts. We may also be required to obtain such licensing or approval from the governmental regulatory agencies described above, or from state agencies, prior to the commercialization of our genetically transformed plants and mammalian technology. In addition, our marketing partners who utilize our technology or sell products grown with our technology may be subject to government regulations. The imposition of unfavorable governmental regulations on our technology or the failure to obtain licenses or approvals in a timely manner would have a material adverse effect on our business.

*The human health applications of our technology are subject to a lengthy and uncertain regulatory process.*

The FDA must approve any drug or biologic product before it can be marketed in the United States. In addition, prior to being sold outside of the U.S., any products resulting from the application of our apoptosis related technology must be approved by the regulatory agencies of foreign governments. Prior to filing a new drug application or biologics license application with the FDA, we would have to perform extensive pre-clinical testing and clinical trials, which could take several years and may require substantial expenditures. Any failure to obtain regulatory approval could delay or prevent the commercialization of our apoptosis related technology.

*Clinical trials on our human health applications may be unsuccessful in demonstrating efficacy and safety, which could delay or prevent regulatory approval.*

Clinical trials may reveal that our mammalian technology is ineffective or harmful, which would significantly limit the possibility of obtaining regulatory approval for any drug or biologic product manufactured with our technology. The FDA requires submission of extensive pre-clinical, clinical and manufacturing data to assess the efficacy and safety of potential products. Furthermore, the success of preliminary studies does not ensure commercial success, and later-stage clinical trials may fail to confirm the results of the preliminary studies.



***Consumers may not accept our technology.***

We cannot guarantee that consumers will accept products containing our technology. Recently, there has been consumer concern and consumer advocate activism with respect to genetically engineered consumer products. The adverse consequences from heightened consumer concern in this regard could affect the markets for products developed with our technology and could also result in increased government regulation in response to that concern. If the public or potential customers perceive our technology to be genetic modification or genetic engineering, agricultural products grown with our technology may not gain market acceptance.

***We depend on our key personnel.***

We are highly dependent on our scientific advisors, consultants and third-party research partners. Dr. Thompson is the inventor of our technology and the driving force behind our current research. The loss of Dr. Thompson would severely hinder our technological development. Our success will also depend in part on the continued service of our key employees and our ability to identify, hire and retain additional qualified personnel in an intensely competitive market. We do not maintain key person life insurance on any member of management. The failure to attract and retain key personnel could limit our growth and hinder our research and development efforts.

***Certain provisions of our charter, by-laws and Delaware law could make a takeover difficult.***

Certain provisions of our certificate of incorporation and by-laws could make it more difficult for a third party to acquire control of us, even if the change in control would be beneficial to stockholders. Our certificate of incorporation authorizes our board of directors to issue, without stockholder approval, except as may be required by the rules of the American Stock Exchange, 5,000,000 shares of preferred stock with voting, conversion and other rights and preferences that could adversely affect the voting power or other rights of the holders of our common stock. Similarly, our by-laws do not restrict our board of directors from issuing preferred stock without stockholder approval.

In addition, we are subject to the Business Combination Act of the Delaware General Corporation Law which, subject to certain exceptions, restricts certain transactions and business combinations between a corporation and a stockholder owning 15% or more of the corporation's outstanding voting stock for a period of three years from the date such stockholder becomes a 15% owner. These provisions may have the effect of delaying or preventing a change of control of us without action by our stockholders and, therefore, could adversely affect the value of our common stock.

Furthermore, in the event of our merger or consolidation with or into another corporation, or the sale of all or substantially all of our assets in which the successor corporation does not assume outstanding options or issue equivalent options, our board of directors is required to provide accelerated vesting of outstanding options.

***Our management and other affiliates have significant control of our common stock and could control our actions in a manner that conflicts with our interests and the interests of other stockholders.***

As of June 30, 2003, our executive officers, directors and affiliated entities together beneficially own approximately 45.0% of the outstanding shares of our common stock, assuming the exercise of options and warrants which are currently exercisable, held by these stockholders. As a result, these stockholders, acting together, will be able to exercise considerable influence over matters requiring approval by our stockholders, including the election of directors, and may not always act in the best interests of other stockholders. Such a concentration of ownership may have the effect of delaying or preventing a change in control of us, including transactions in which our stockholders might otherwise receive a premium for their shares over then current market prices.

*Our stockholders may experience substantial dilution as a result of outstanding options and warrants to purchase our common stock.*

As of June 30, 2003, we have granted options outside of our stock option plan to purchase 10,000 shares of our common stock and warrants to purchase 4,207,153 shares of our common stock. In addition, as of June 30, 2003, we have reserved 3,000,000 shares of our common stock for issuance upon the exercise of options granted pursuant to our stock option plan, 1,781,000 of which have been granted and 1,219,000 of which may be granted in the future. The exercise of these options and warrants will result in dilution to our existing stockholders and could have a material adverse effect on our stock price.

*Shares eligible for public sale.*

As of June 30, 2003, we had 11,880,045 shares of our common stock issued and outstanding, of which approximately 8,000,000 shares are registered pursuant to a registration statement on Form S-3, which was deemed effective on June 28, 2002, and the remainder of which are in the public float. In addition, we have registered 3,000,000 shares of our common stock underlying options granted or to be granted under our stock option plan. Consequently, sales of substantial amounts of our common stock in the public market, or the perception that such sales could occur, may adversely affect the market price of our common stock.

*Our stock has a limited trading market.*

Our common stock is quoted on the American Stock Exchange and currently has a limited trading market. We cannot assure that an active trading market will develop or, if developed, will be maintained. As a result, our stockholders may find it difficult to dispose of shares of our common stock and, as a result, may suffer a loss of all or a substantial portion of their investment.

*Our stock price may fluctuate.*

The market price of our common stock may fluctuate significantly in response to a number of factors, some of which are beyond our control. These factors include:

- quarterly variations in operating results;
- the progress or perceived progress of our research and development efforts;
- changes in accounting treatments or principles;
- announcements by us or our competitors of new technology, product and service offerings, significant contracts, acquisitions or strategic relationships;
- additions or departures of key personnel;
- future offerings or resales of our common stock or other securities;
- stock market price and volume fluctuations of publicly-traded companies in general and development companies in particular; and
- general political, economic and market conditions.

*If our common stock is delisted from the American Stock Exchange, it may be subject to the "penny stock" regulations which may affect the ability of our stockholders to sell their shares.*

In general, regulations of the SEC define a "penny stock" to be an equity security that is not listed on a national securities exchange or Nasdaq and that has a market price of less than \$5.00 per share or with an exercise price of less than \$5.00 per share, subject to certain exceptions. If the American Stock Exchange delists our common stock, it could be deemed a penny stock, which imposes additional sales practice requirements on broker-dealers that sell such securities to persons other than certain qualified investors. For transactions involving a penny stock, unless exempt, a broker-dealer must make a special suitability determination for the purchaser and receive the purchaser's written consent to the transaction prior to the sale. In addition, the rules on penny stocks require delivery, prior to and after any penny stock transaction, of disclosures required by the SEC.

If our common stock were subject to the rules on penny stocks, the market liquidity for our common stock could be severely and adversely affected. Accordingly, the ability of holders of our common stock to sell their shares in the secondary market may also be adversely affected.

*Increasing political and social turmoil, such as terrorist and military actions, increase the difficulty for us and our strategic partners to forecast accurately and plan future business activities.*

Recent political and social turmoil, including the terrorist attacks of September 11, 2001, the conflict in Iraq, the current crisis in the Middle East and the outbreak of SARS in China, can be expected to put further pressure on economic conditions in the United States and worldwide. These political, social and economic conditions may make it difficult for us to plan future business activities. Specifically, if the current crisis in Israel continues to escalate, the Rahan Joint Venture could be adversely affected. In addition, the SARS crisis could continue to affect the pace of discussions related to the letter of intent with the Tianjin Academy of Agricultural Sciences.

#### **Item 2 : Properties.**

We lease office space in New Brunswick, New Jersey for a monthly rental fee of \$2,838, subject to certain escalations for our proportionate share of increases, over the base year of 2001, in the building's operating costs. The lease expires in May 2006. We have an option to renew the lease for an additional five-year period through May 2011. The space is in good condition and we believe it will adequately serve as our headquarters over the term of the lease. We also believe that this office space is adequately insured by the lessor.

#### **Item 3 : Legal Proceedings.**

We are not currently a party to any legal proceedings, however, we may become involved in various claims and legal actions arising in the ordinary course of business.

#### **Item 4 : Submission of Matters to a Vote of Security Holders.**

None.

## Part II

### Item 5 : Market for Our Common Equity and Related Stockholder Matters.

From January 25, 1999 through May 16, 2002, our common stock had been trading on the NASD OTC Bulletin Board under the symbol SENO. On May 17, 2002, our common stock began trading on the American Stock Exchange under the symbol SNT.

The following table sets forth the range of the high and low sales price for our common stock for each of the quarters since the quarter ended September 30, 2001, as reported on the NASD OTC Bulletin Board and the American Stock Exchange.

Quarter Ended	Common Stock	
	High	Low
September 30, 2001	\$3.08	\$1.57
December 31, 2001	\$2.99	\$1.74
March 31, 2002	\$3.13	\$2.20
June 30, 2002	\$3.55	\$1.30
September 30, 2002	\$2.35	\$1.20
December 31, 2002	\$2.75	\$1.60
March 31, 2003	\$2.50	\$1.95
June 30, 2003	\$2.50	\$1.50

As of September 19, 2003, the approximate number of holders of record of our common stock was 285.

We have neither paid nor declared dividends on our common stock since our inception and we do not plan to pay dividends on our common stock in the foreseeable future. We expect that any earnings, which we may realize, will be retained to finance the growth of our company.

## Item 6 : Management's Discussion and Analysis or Plan of Operation.

### Overview

We do not expect to generate significant revenues for approximately the next two to three years, during which time we will engage in significant research and development efforts. However, we have entered into the Harris Moran License, the ArborGen Agreement and the Cal/West License to develop and commercialize our technology in certain varieties of lettuce, melons, trees and alfalfa. The Harris Moran License and the Cal/West License also provide for royalty payments to us upon commercial introduction. The ArborGen Agreement contains an option for ArborGen to execute a license to commercialize developed products, and upon the execution of a license agreement, we will receive a license fee and royalties from ArborGen. The Cal/West License contains an option for Cal/West to develop our technology in various other forage crops. We also have entered into the Rahan Joint Venture to develop and commercialize our technology in banana plants. In connection with the Rahan Joint Venture, we will receive 50% of the profits from the sale of enhanced banana plants.

Consistent with our commercialization strategy, we intend to attract other companies interested in strategic partnerships or licensing our technology that may result in additional license fees, revenues from contract research and other related revenues. Successful future operations will depend on our ability to transform our research and development activities into commercializable technology.

### Critical Accounting Policies and Estimates

We recognize revenue from license and development agreements as services are provided and milestones are achieved.

We are amortizing the cost of an initial \$200,000 non-refundable payment made under a research agreement over the estimated eighteen-month term of the project. As of June 30, 2003, \$100,000, which will be amortized over the remaining estimated nine months of the research project, is included in the balance sheet as a prepaid expense.

We have recorded valuation allowances against our entire deferred tax assets of \$2,856,000 at June 30, 2003. The valuation allowances relate primarily to the net operating loss carryforward deferred tax asset where the tax benefit of such asset is not assured.

As of June 30, 2003, we have determined that the estimated future undiscounted cash flows related to our patent applications will be sufficient to recover their carrying value.

Accrued expenses partially consist of estimates for costs incurred in connection with certain research projects. The estimates are based upon the research activities performed and their correlation to the research budget provided.

We do not have any off-balance sheet arrangements.

## Liquidity and Capital Resources

### *Overview*

As of June 30, 2003, our cash balance and investments totaled \$2,419,225, and we had working capital of \$2,285,464. As of June 30, 2003, we had a federal tax loss carryforward of approximately \$7,470,000 and a state tax loss carry-forward of approximately \$3,511,000 to offset future taxable income. There can be no assurance, however, that we will be able to take advantage of any or all of such tax loss carryforwards, if at all, in future fiscal years.

### *Financing Needs*

We have research and development agreements with the University of Waterloo, which provide for research and development services to be performed at the direction of our company and Dr. Thompson. We have paid the University of Waterloo an aggregate of approximately US \$1,120,000 under the First Research and Development Agreement. Effective September 1, 2002, we extended our First Research and Development Agreement for an additional two-year period, in the amount of Can \$1,092,800, which represented approximately US \$806,000 as of June 30, 2003. Effective May 1, 2002, we entered into a Second Research and Development for a one-year period, under which we paid Can \$50,000, which represented US \$42,646 as of June 30, 2003. During the years ended June 30, 2003 and June 30, 2002, we incurred expenses of \$415,886 and \$254,347, respectively, in connection with the Research and Development Agreements.

In September 2002, we entered into the Anawah Agreement, which provides us with a license to use Anawah's technology to develop and commercialize enhanced species of produce. The agreement will continue until the expiration of the patents set forth in the agreement, unless terminated earlier by either party pursuant to the terms of the agreement. In connection with the execution of the agreement, we incurred an initial fee of \$200,000, which is being amortized over the term of the research to be performed under the agreement. Upon the completion of certain benchmarks, we will incur additional research and development fees and will make certain royalty payments to Anawah.

As of June 30, 2003, we have directly received a total of \$90,150, \$22,178 of which was received during the current year, from the BIRD Foundation for research and development expenses we have incurred which are associated with the research and development efforts of the Rahan Joint Venture. We expect to receive one additional installment of the BIRD Grant as our expenditures associated with the Rahan Joint Venture increased above certain levels. Our portion of the Rahan Joint Venture's aggregate expenses totaled approximately \$53,500 and \$41,000 for the years ended June 30, 2003 and June 30, 2002, respectively, and is included in research and development expenses. As of June 30, 2003, our portion of the Rahan Joint Venture's aggregate expenses to date totaled approximately \$208,000.

We lease office space in New Brunswick, New Jersey for a monthly rental fee of \$2,838, subject to certain escalations for our proportionate share of increases in the building's operating costs. The lease expires in May 2006, but is renewable for an additional five-year term.

We have employment agreements with certain employees, who are also stockholders, which provide for a base compensation and additional amounts, as set forth in each agreement. The agreements expire between January 2004 and June 2006. As of June 30, 2003, future base compensation to be paid under the agreements through June 2006 totals \$673,750.

We have consulting agreements with each of Dr. Thompson and Dr. Bennett, which provide for monthly payments in exchange for research and development services. The agreement with Dr. Thompson provides for monthly payments of \$5,000 through June 2004, and is automatically renewable unless terminated by either party within six months prior to the end of the term. The agreement with Dr. Bennett provides for monthly payments of \$2,400 until November 2003.

In February 2002, we entered into scientific advisory board agreements with each of Dr. Russell A. Jones and Dr. Charles A. Dinarello, which provide for payments of \$10,000 per year, payable in quarterly installments, to each of Drs. Jones and Dinarello, respectively, through February 28, 2005 and may be terminated by either party within 90 days written notice.

In December 2002, we entered into a six-month financial consulting agreement with Perrin, Holden & Davenport Capital Corp. The agreement was effective on February 1, 2003 and provides for monthly payments of \$5,000. Effective August 1, 2003, the financial consulting agreement with Perrin, Holden & Davenport Capital Corp. was extended for an additional three-month period on the same terms.

The following table lists our cash contractual obligations as of June 30, 2003:

Contractual Obligations	Payments Due by Period				
	Total	Less than 1 year	1-3 years	4-5 years	More than 5 years
Research and Development Agreements <sup>(1)</sup>	\$402,500	\$345,000	\$57,500	\$ –	\$ –
Facility, Rent and Operating Leases <sup>(2)</sup>	\$96,492	\$34,056	\$62,436	\$ –	\$ –
Employment, Consulting and Scientific Advisory Board Agreements <sup>(3) (4)</sup>	\$817,517	\$491,433	\$326,083	\$ –	\$ –
Total Contractual Cash Obligations	\$1,316,509	\$870,489	\$446,019	\$ –	\$ –

- (1) Certain of our research and development agreements disclosed herein provide that payment is to be made in Canadian dollars and, therefore, the contractual obligations are subject to fluctuations in the exchange rate.
- (2) The lease for our office space in New Brunswick, New Jersey is subject to certain escalations for our proportionate share of increases in the building's operating costs.
- (3) Certain of our employment and consulting agreements provide for automatic renewal (which is not reflected in the table), unless terminated earlier by the parties to the respective agreements.
- (4) Includes \$366,000 for an employment agreement that was not effective until July 1, 2003 and \$15,000 for a consulting agreement that was not effective until August 1, 2003.

We expect our capital requirements to increase significantly over the next several years as we commence new research and development efforts, increase our business and administrative infrastructure and embark on developing in-house business capabilities and facilities. Our future liquidity and capital funding requirements will depend on numerous factors, including, but not limited to, the levels and costs of our research and development initiatives and the cost and timing of the expansion of our business development and administrative staff.

### *Capital Resources*

Since inception, we have generated revenues of \$210,000 in connection with the initial fees received under the Harris Moran License, the ArborGen Agreement and the Cal/West License. We have not been profitable since inception, we will continue to incur additional operating losses in the future, and we will require additional financing to continue the development and subsequent commercialization of our technology. While we do not expect to generate significant revenues from the licensing of our technology in the near future, we may enter into additional licensing or other agreements with marketing and distribution partners that may result in additional license fees, receive revenues from contract research, or other related revenue.

In November 2001, we entered into a worldwide exclusive development and license agreement with Harris Moran Seed Company to commercialize our technology in lettuce and certain melons for an indefinite term, unless terminated by either party pursuant to the terms of the agreement. In connection with the Harris Moran License, we received an initial license fee of \$125,000 in November 2001. Upon our signing of an agreement with a distributor, Harris Moran Seed Company will pay us an additional \$125,000 fee. The Harris Moran License also provides for the distributor to make development payments to us of \$3,750,000 upon our completion of development benchmarks, as well as royalties upon commercial introduction.

In June 2002, we entered into a three-year worldwide exclusive development and option agreement with ArborGen to develop our technology in certain species of trees. In connection with the ArborGen Agreement, we received an initial development fee of \$75,000 in July 2002. Upon the completion of certain development benchmarks set forth in the ArborGen Agreement, we will receive an additional \$225,000 in periodic development payments over the term of the ArborGen Agreement. The ArborGen Agreement also grants ArborGen an option to acquire an exclusive worldwide license to commercialize our technology in various forestry products, and upon the execution of a license agreement, we will receive a license fee and royalties from ArborGen.

In September 2002, we entered into an exclusive development and license agreement with Cal/West to develop our technology in certain varieties of alfalfa. The Cal/West License will continue until the expiration of the patents set forth in the agreement, unless terminated earlier by either party pursuant to the terms of the agreement. The Cal/West License also grants Cal/West an exclusive option to develop our technology in various other forage crops. In connection with the execution of the Cal/West License, we received an initial fee of \$10,000 in September 2002. Upon the completion of certain development benchmarks, we will receive an additional \$20,000 in periodic payments, and upon the commercialization of certain products, we will receive royalty payments from Cal/West.

In each of September 2002 and February 2003, we received a payment of \$11,089 from the BIRD Foundation for research and development expenses that we have incurred in connection with the Rahan Joint Venture. We anticipate receiving one additional payment from the BIRD Grant in the future to assist in funding the Rahan Joint Venture, subject to the Rahan Joint Venture achieving its stated research and development objectives.



In December 2002, pursuant to the New Jersey Technology Tax Credit Transfer Program, we received approval from the New Jersey Economic Development Authority to sell our New Jersey net operating loss tax benefit in the amount of \$151,390 for the fiscal year ended June 30, 2001. In December 2002, we sold our entire New Jersey net operating loss tax benefit and received net proceeds of \$130,952. We have applied to participate in the program to sell our New Jersey net operating loss tax benefit in the amount of approximately \$132,000 for the fiscal year ended June 30, 2002. However, there can be no assurance that we will be approved to participate in the Program for the fiscal year ended June 30, 2002, or if approved, that we will be able to sell all or part of our New Jersey net operating loss tax benefit.

We anticipate that, based upon our current cash and investments, we will be able to fund operations for at least the next twelve months. Over the next twelve months, we plan to fund our research and development and commercialization activities by utilizing our current cash balance and investments, achieving the milestones set forth in our current licensing agreements, and through the consummation of additional licensing agreements for our technology.

## Foreign Currency Risk

Except for our Research and Development Agreements with the University of Waterloo, which is payable in Canadian dollars, we have no other agreements or transactions denominated in foreign currency. Thus, we do not believe that any fluctuations in foreign currency exchange rates would have a material impact on our financial condition or results of operations.

## Results of Operations

### *Fiscal Years ended June 30, 2003 and June 30, 2002*

Revenue for the year ended June 30, 2003 was \$10,000, which represented the initial license fee in connection with the Cal/West License. Revenue for the year ended June 30, 2002 was \$200,000, which represented the initial fees in connection with the Harris Moran License and ArborGen Agreement.

Operating expenses consist of general and administrative expenses, research and development expenses and stock-based compensation. Operating expenses for the years ended June 30, 2003 and June 30, 2002 were \$2,278,606 and \$2,314,233, respectively, a decrease of \$35,627, or 1.5%. This decrease in operating expenses was primarily the result of a decrease in stock-based compensation which was mostly offset by an increase in general and administrative and research and development expenses.

General and administrative expenses consist primarily of payroll and benefits, professional and consulting services, investor relations, office rent and corporate insurance. General and administrative expenses for the years ended June 30, 2003 and June 30, 2002 were \$1,347,526 and \$1,308,856, respectively, an increase of \$38,670, or 3.0%. This increase was primarily the result of an increase in payroll and benefits and investor relations, partially offset by a decrease in consulting services, recruiting costs and legal fees. Consulting services decreased during the year ended June 30, 2003, as a result of the hiring of Mr. Galton on October 4, 2001, as our President and Chief Executive Officer. From July 1, 2001 through October 4, 2001, the positions of President and CEO were held by two non-employee board members and, accordingly, their compensation for those functions was categorized

as consulting services. The decrease in consulting services was partially offset by an increase in employee payroll and benefits during the year ended June 30, 2003 as a result of the President and CEO compensation being classified as payroll instead of consulting services. In connection with our strategy to increase our recognition in the public market, expenses related to investor relations increased during the year ended June 30, 2003, primarily as a result of fees incurred for our investor relations firm, listing fees for the American Stock Exchange, financial consulting fees and costs associated with presentations to various analysts, money managers and funds, all of which were not incurred during the year ended June 30, 2002.

Research and development expenses consist primarily of fees associated with the Research and Development Agreements, costs associated with the research being performed at the University of Colorado, amortization of the initial fee in connection with the Anawah Agreement and consulting fees to the Scientific Advisory Board, Dr. Thompson and Dr. Bennett. Research and development expenses for the years ended June 30, 2003 and June 30, 2002 were \$793,903 and \$370,191, respectively, an increase of \$423,712, or 114.5%. This increase was primarily the result of an increase in the research and development costs incurred in connection with the expanded research undertaken by the University of Waterloo, the implementation of our mammalian cell research programs and the implementation of new plant research being conducted in connection with the Anawah Agreement.

Stock-based compensation consists of non-employee stock options and warrants granted and vesting as consideration for certain professional, consulting, legal and advertising services. Stock-based compensation for the years ended June 30, 2003 and June 30, 2002 was \$137,177 and \$635,186, respectively, a decrease of \$498,009, or 78.4%. The decrease was primarily the result of a decrease in stock options granted and becoming vested to members of the Scientific Advisory Board and consultants and warrants granted and becoming vested to certain financial advisors during the year ended June 30, 2003.

#### *From Inception on July 1, 1998 through June 30, 2003*

From inception of operations on July 1, 1998 through June 30, 2003, we had revenues of \$210,000, which consisted of the initial license fees in connection with two of our development and license agreements. We do not expect to generate significant revenues for approximately the next two to three years, during which time we will engage in significant research and development efforts.

We have incurred losses each year since inception and have an accumulated deficit of \$9,496,659 at June 30, 2003. We expect to continue to incur losses as a result of expenditures on research, product development and administrative activities.

#### **Item 7 : Financial Statements.**

The financial statements required to be filed pursuant to this Item 7 are included in this Annual Report on Form 10-KSB. A list of the financial statements filed herewith is found at "Item 13. Exhibits, List and Reports on Form 8-K."

#### **Item 8 : Changes in and Disagreements With Accountants on Accounting and Financial Disclosure.**

None.

#### **Item 8A : Controls and Procedures.**

Our management, with the participation of our chief executive officer and chief financial officer, evaluated the effectiveness of our disclosure controls and procedures (as defined in Rules 13a-15(e) and 15d-15(e) under the Exchange Act) as of June 30, 2003. Based on this evaluation, our chief executive officer and chief financial officer concluded that as of June 30, 2003, our disclosure controls and procedures were (1) designed to ensure that material information relating to us, including our consolidated subsidiaries, is made known to our chief executive officer and chief financial officer by others within those entities, particularly during the period in which this report was being prepared and (2) effective, in that they provide reasonable assurance that information required to be disclosed by us in the reports that we file or submit under the Exchange Act is recorded, processed, summarized and reported within the time periods specified in the SEC's rules and forms.

No change in our internal controls over financial reporting (as defined in Rules 13a-15(f) and 15d-15(f) under the Exchange Act) occurred during the fiscal year ended June 30, 2003 that has materially affected, or is reasonably likely to materially affect, our internal controls over financial reporting.

### **PART III**

#### **Item 9 : Directors and Executive Officers.**

The information relating to our directors, nominees for election as directors and executive officers under the headings "Election of Directors" and "Executive Officers" in our definitive proxy statement for the 2003 Annual Meeting of Stockholders is incorporated herein by reference to such proxy statement.

#### **Item 10 : Executive Compensation.**

The discussion under the heading "Executive Compensation" in our definitive proxy statement for the 2003 Annual Meeting of Stockholders is incorporated herein by reference to such proxy statement.

#### **Item 11 : Security Ownership of Certain Beneficial Owners and Management.**

The discussion under the heading "Security Ownership of Certain Beneficial Owners and Management" in our definitive proxy statement for the 2003 Annual Meeting of Stockholders is incorporated herein by reference to such proxy statement.

#### **Item 12 : Certain Relationships and Related Transactions.**

The discussion under the heading "Certain Relationships and Related Transactions" in our definitive proxy statement for the 2003 Annual Meeting of Stockholders is incorporated herein by reference to such proxy statement.

#### **Item 13 : Exhibits, List and Reports on Form 8-K.**

- (a) (1) Financial Statements.

Reference is made to the Index to Financial Statements on Page F-1.

- (a) (2) Financial Statement Schedules.

None.

- (a) (3) Exhibits.

Reference is made to the Exhibit Index on Page 41.

- (b) Reports on Form 8-K.

None.

#### **Item 14 : Principal Accountant Fees and Services.**

Pursuant to SEC Release No. 33-8183 (as corrected by Release No. 33-8183A), the disclosure requirements of this Item 14 are not effective until the filing of the Annual Report on Form 10-KSB for the first fiscal year ending after December 15, 2003.

## SIGNATURES

Pursuant to the requirements of Section 13 or 15(d) of the Securities Exchange Act of 1934, the Registrant has duly caused this report to be signed on its behalf by the undersigned, thereunto duly authorized this 29th day of September 2003.

SENESCO TECHNOLOGIES, INC.

By: /s/ Bruce C. Galton

Bruce C. Galton,  
*President and Chief Executive Officer*

Pursuant to the requirements of the Securities Exchange Act of 1934, this report has been signed below by the following persons on behalf of the Registrant and in the capacities and on the dates indicated.

Signature	Title	Date
/s/ Ruedi Stalder Ruedi Stalder	Chairman and Director	09.29.2003
/s/ Bruce C. Galton Bruce C. Galton	President and Chief Executive Officer (principal executive officer) and Director	09.29.2003
/s/ Joel Brooks Joel Brooks	Chief Financial Officer and Treasurer (principal financial and accounting officer)	09.29.2003
/s/ John E. Thompson John E. Thompson	Executive Vice President of Research and Development and Director	09.29.2003
/s/ Christopher Forbes Christopher Forbes	Director	09.29.2003
/s/ Thomas C. Quick Thomas C. Quick	Director	09.29.2003
/s/ David Rector David Rector	Director	09.29.2003

## EXHIBIT INDEX

Exhibit No Description of Exhibit

- 2.1 Merger Agreement and Plan of Merger by and among Nava Leisure USA, Inc., an Idaho corporation, the Principal Stockholders (as defined therein), Nava Leisure Acquisition Corp., and Senesco, Inc., dated October 9, 1998. (Incorporated by reference to Senesco Technologies, Inc. definitive proxy statement on Schedule 14A dated January 11, 1999.)
- 2.2 Merger Agreement and Plan of Merger by and between Senesco Technologies, Inc., an Idaho corporation, and Senesco Technologies, Inc., a Delaware corporation, dated September 30, 1999. (Incorporated by reference to Senesco Technologies, Inc. quarterly report on Form 10-QSB for the period ended September 30, 1999.)
- 3.1 Amended and Restated Certificate of Incorporation of Senesco Technologies, Inc. filed with the State of Delaware on December 26, 2002. (Incorporated by reference to Senesco Technologies, Inc. quarterly report on Form 10-QSB for the period ended December 31, 2002.)
- 3.2 Amended and Restated By-laws of Senesco Technologies, Inc. as adopted on October 2, 2000. (Incorporated by reference to Senesco Technologies, Inc. quarterly report on Form 10-QSB for the period ended December 31, 2000.)
- 4.1 Form of Common Stock Purchase Agreement by and among Senesco Technologies, Inc. and the Purchasers (as defined therein), dated May 11, 1999. (Incorporated by reference to Senesco Technologies, Inc. quarterly report on Form 10-QSB for the period ended March 31, 1999.)
- 4.2 Form of Registration Rights Agreement by and among Senesco Technologies, Inc. and the Purchasers (as defined therein), dated May 11, 1999. (Incorporated by reference to Senesco Technologies, Inc. quarterly report on Form 10-QSB for the period ended March 31, 1999.)
- 4.3 Form of Warrant with Forbes, Inc. (Incorporated by reference to Senesco Technologies, Inc. quarterly report on Form 10-QSB for the period ended September 30, 1999.)
- 4.4 Form of Option Agreement with Kenyon & Kenyon. (Incorporated by reference to Senesco Technologies, Inc. quarterly report on Form 10-QSB for the period ended September 30, 1999.)
- 4.5 Form of Warrant with Parenteau Corporation. (Incorporated by reference to Senesco Technologies, Inc. quarterly report on Form 10-QSB for the period ended December 31, 1999.)
- 4.6 Form of Warrant with Strategic Growth International, Inc. (Incorporated by reference to Senesco Technologies, Inc. quarterly report on Form 10-QSB for the period ended December 31, 1999.)
- 4.7 Form of Warrant with Fahnestock & Co. Inc., dated March 30, 2000. (Incorporated by reference to Senesco Technologies, Inc. annual report on Form 10-KSB for the period ended June 30, 2000.)
- 4.8 Form of Registration Rights Agreement by and between Senesco Technologies, Inc. and Fahnestock & Co. Inc., dated as of March 30, 2000. (Incorporated by reference to Senesco Technologies, Inc. annual report on Form 10-KSB for the period ended June 30, 2000.)
- 4.9 Form of Common Stock Purchase Agreement by and among Senesco Technologies, Inc. and the Purchasers (as defined therein), dated as of May 31, 2000 and June 14, 2000, respectively. (Incorporated by reference to Senesco Technologies, Inc. annual report on Form 10-KSB for the period ended June 30, 2000.)
- 4.10 Form of Registration Rights Agreements by and among Senesco Technologies, Inc. and the Purchasers (as defined therein), dated May 31, 2000 and June 14, 2000, respectively. (Incorporated by reference to Senesco Technologies, Inc. annual report on Form 10-KSB for the period ended June 30, 2000.)
- 4.11 Form of Warrant Agreement with Fahnestock & Co. Inc., dated October 2, 2000. (Incorporated by reference to Senesco Technologies, Inc. quarterly report on Form 10-QSB for the period ended December 31, 2000.)
- 4.12 Warrant Agreement by and between Senesco Technologies, Inc. and Christenson, Hutchinson, McDowell, LLC. (Incorporated by reference to Senesco Technologies, Inc. quarterly report on Form 10-QSB for the period ended September 30, 2001.)

- 4.13 Form of Warrant issued to Stanford Venture Capital Holdings, Inc. and certain officers of Stanford Venture Capital Holdings, Inc. (with attached schedule of parties and terms thereto). (Incorporated by reference to Exhibit 4.1 of Senesco Technologies, Inc. quarterly report on Form 10-QSB for the period ended December 31, 2001.)
- 4.14 Form of Warrant issued to certain accredited investors (with attached schedule of parties and terms thereto). (Incorporated by reference to Exhibit 4.2 of Senesco Technologies, Inc. quarterly report on Form 10-QSB for the period ended March 31, 2002.)
- 4.15 Form of Warrant issued to Pond Equities, Inc. (with attached schedule of terms thereto). (Incorporated by reference to Exhibit 4.3 of Senesco Technologies, Inc. quarterly report on Form 10-QSB for the period ended March 31, 2002.)
- 4.16 Form of Warrant issued to Perrin, Holden & Davenport Capital Corp. and certain principals thereof (with attached schedule of parties and terms thereto). (Incorporated by reference to Exhibit 4.4 of Senesco Technologies, Inc. quarterly report on Form 10-QSB for the period ended March 31, 2002.)
- 4.17 Form of Warrant issued to certain accredited investors (with attached schedule of parties and terms thereto). (Incorporated by reference to Exhibit 4.2 of Senesco Technologies, Inc. quarterly report on Form 10-QSB for the period ended December 31, 2002.)
- 4.18 Form of Warrant issued to certain third parties for services rendered (with attached schedule of parties and terms thereto). (Incorporated by reference to Exhibit 4.3 of Senesco Technologies, Inc. quarterly report on Form 10-QSB for the period ended December 31, 2002.)
- 10.1 Indemnification Agreement by and between Senesco Technologies, Inc. and Christopher Forbes, dated January 21, 1999. (Incorporated by reference to Senesco Technologies, Inc. quarterly report on Form 10-QSB for the period ended December 31, 1998.)
- 10.2 Indemnification Agreement by and between Senesco Technologies, Inc. and Thomas C. Quick, dated February 23, 1999. (Incorporated by reference to Senesco Technologies, Inc. quarterly report on Form 10-QSB for the period ended March 31, 1999.)
- 10.3 Indemnification Agreement by and between Senesco Technologies, Inc. and Ruedi Stalder, dated March 1, 1999. (Incorporated by reference to Senesco Technologies, Inc. quarterly report on Form 10-QSB for the period ended March 31, 1999.)
- 10.4\* Employment Agreement by and between Senesco, Inc. and Sascha P. Fedyszyn, dated January 21, 1999. (Incorporated by reference to Senesco Technologies, Inc. quarterly report on Form 10-QSB for the period ended December 31, 1998.)
- 10.5 Research Agreement by and among Senesco Technologies, Inc., Dr. John E. Thompson and the University of Waterloo, dated September 1, 1998, as amended. (Incorporated by reference to Senesco Technologies, Inc. quarterly report on Form 10-QSB for the period ended December 31, 1998.)
- 10.6\* Consulting Agreement by and between Senesco Technologies, Inc. and John E. Thompson, Ph.D., dated July 12, 1999. (Incorporated by reference to Senesco Technologies, Inc. annual report on Form 10-KSB for the period ended June 30, 2000.)
- 10.7 Office lease by and between Senesco Technologies, Inc. and Matrix/AEW NB, LLC, dated March 16, 2001. (Incorporated by reference to Senesco Technologies, Inc. quarterly report on Form 10-QSB for the period ended March 31, 2001.)
- 10.8 Securities Purchase Agreement by and between Senesco Technologies, Inc. and Stanford Venture Capital Holdings, Inc., dated November 30, 2001. (Incorporated by reference to Exhibit 10.1 of Senesco Technologies, Inc. quarterly report on Form 10-QSB for the period ended December 31, 2001.)
- 10.9 Securities Purchase Agreement by and between Senesco Technologies, Inc. and Stanford Venture Capital Holdings, Inc., dated January 16, 2002. (Incorporated by reference to Exhibit 10.2 of Senesco Technologies, Inc. quarterly report on Form 10-QSB for the period ended December 31, 2001.)
- 10.10 Form of Securities Purchase Agreement by and between Senesco Technologies, Inc. and certain directors of Senesco Technologies, Inc. (with attached schedule of parties and terms thereto). (Incorporated by reference to Exhibit 10.3 of Senesco Technologies, Inc. quarterly report on Form 10-QSB for the period ended December 31, 2001.)

- 10.11 Form of Securities Purchase Agreement by and between Senesco Technologies, Inc. and certain accredited investors (with attached schedule of parties and terms thereto). (Incorporated by reference to Exhibit 10.4 of Senesco Technologies, Inc. quarterly report on Form 10-QSB for the period ended December 31, 2001.)
- 10.12 Form of Securities Purchase Agreement by and between Senesco Technologies, Inc. and certain accredited investors (with attached schedule of parties and terms thereto). (Incorporated by reference to Exhibit 10.2 of Senesco Technologies, Inc. quarterly report on Form 10-QSB for the period ended March 31, 2002.)
- 10.13 Form of Registration Rights Agreement by and between Senesco Technologies, Inc. and each of certain accredited investors (with attached schedule of parties and terms thereto). (Incorporated by reference to Exhibit 10.6 of Senesco Technologies, Inc. quarterly report on Form 10-QSB for the period ended December 31, 2001.)
- 10.14 Form of Registration Rights Agreement by and between Senesco Technologies, Inc. and each of certain accredited investors (with attached schedule of parties and terms thereto). (Incorporated by reference to Exhibit 10.4 of Senesco Technologies, Inc. quarterly report on Form 10-QSB for the period ended March 31, 2002.)
- 10.15 \* 1998 Stock Incentive Plan, as amended on December 13, 2002. (Incorporated by reference to Exhibit 10.7 of Senesco Technologies, Inc. quarterly report on Form 10-QSB for the period ended December 31, 2002.)
- 10.16 + License Agreement by and between Senesco Technologies, Inc. and Harris Moran Seed Company, dated November 19, 2001. (Incorporated by reference to Exhibit 10.8 of Senesco Technologies, Inc. quarterly report on Form 10-QSB for the period ended December 31, 2001.)
- 10.17 \* Employment Agreement by and between Senesco Technologies, Inc. and Bruce C. Galton, dated October 4, 2001. (Incorporated by reference to Exhibit 10.9 of Senesco Technologies, Inc. quarterly report on Form 10-QSB for the period ended December 31, 2001.)
- 10.18 Indemnification Agreement by and between Senesco Technologies, Inc. and Bruce C. Galton, dated October 4, 2001. (Incorporated by reference to Exhibit 10.10 of Senesco Technologies, Inc. quarterly report on Form 10-QSB for the period ended December 31, 2001.)
- 10.19 Consulting Agreement by and between Senesco Technologies, Inc. and Alan B. Bennett, Ph.D., dated November 1, 2002. (Incorporated by reference to Exhibit 10.3 of Senesco Technologies, Inc. quarterly report on Form 10-QSB for the period ended December 31, 2002.)
- 10.20 Agreement for Service on Senesco Technologies, Inc. Scientific Advisory Board by and between Senesco Technologies, Inc. and Dr. Russell A. Jones, dated February 12, 2002. (Incorporated by reference to Exhibit 10.5 of Senesco Technologies, Inc. quarterly report on Form 10-QSB for the period ended March 31, 2002.)
- 10.21 Agreement for Service on Senesco Technologies, Inc. Scientific Advisory Board by and between Senesco Technologies, Inc. and Dr. Charles A. Dinarello, dated February 12, 2002. (Incorporated by reference to Exhibit 10.6 of Senesco Technologies, Inc. quarterly report on Form 10-QSB for the period ended March 31, 2002.)
- 10.22 Financial Consulting Agreement by and between Senesco Technologies, Inc. and Perrin, Holden & Davenport Capital Corp., dated February 1, 2003. (Incorporated by reference to Exhibit 10.4 of Senesco Technologies, Inc. quarterly report on Form 10-QSB for the period ended December 31, 2002.)
- 10.23 Research Agreement by and among Senesco Technologies, Inc., Dr. John E. Thompson and the University of Waterloo, dated May 1, 2002. (Incorporated by reference to Exhibit 10.29 of Senesco Technologies, Inc. annual report on Form 10-KSB for the year ended June 30, 2002.)



- 10.24 + Development Agreement by and between Senesco Technologies, Inc. and ArborGen, LLC, dated June 28, 2002. (Incorporated by reference to Exhibit 10.31 of Senesco Technologies, Inc. annual report on Form 10-KSB for the year ended June 30, 2002.)
- 10.25 + Development and License Agreement by and between Senesco Technologies, Inc. and Cal/west Seeds, dated September 14, 2002. (Incorporated by reference to Exhibit 10.1 of Senesco Technologies, Inc. quarterly report on Form 10-QSB for the period ended September 30, 2002.)
- 10.26 Collaboration Agreement by and between Senesco Technologies, Inc. and Tilligen, Inc. (currently known as Anawah, Inc.), dated September 20, 2002. (Incorporated by reference to Exhibit 10.1 of Senesco Technologies, Inc. quarterly report on Form 10-QSB for the period ended September 30, 2002.)
- 10.27 Sales Representative Agreement by and between Senesco Technologies, Inc. and DP, Inc., dated October 14, 2002. (Incorporated by reference to Exhibit 10.1 of Senesco Technologies, Inc. quarterly report on Form 10-QSB for the period ended December 31, 2002.)
- 10.28 \* Amendment to Consulting Agreement of July 12, 1999, as modified on February 8, 2001, by and between Senesco Technologies, Inc. and John E. Thompson, Ph.D., dated December 13, 2002. (Incorporated by reference to Exhibit 10.1 of Senesco Technologies, Inc. quarterly report on Form 10-QSB for the period ended December 31, 2002.)
- 10.29 \*† Employment Agreement by and between Senesco Technologies, Inc. and Joel Brooks, dated July 1, 2003.
- 10.30 † Letter Agreement effective August 1, 2003, extending the Financial Consulting Agreement by and between Senesco Technologies, Inc. and Perrin, Holden & Davenport Capital Corp., dated February 1, 2003.
- 21 Subsidiaries of the Registrant. (Incorporated by reference to Senesco Technologies, Inc. annual report on Form 10-KSB for the period ended June 30, 1999.)
- 23.1 † Consent of Goldstein Golub Kessler LLP.
- 31.1 † Certification of the principal executive officer pursuant to Section 302 of the Sarbanes-Oxley Act of 2002.
- 31.2 † Certification of the principal financial and accounting officer pursuant to Section 302 of the Sarbanes-Oxley Act of 2002.
- 32.1 † Certification of the principal executive officer pursuant to Section 906 of the Sarbanes-Oxley Act of 2002.
- 32.2 † Certification of the principal financial and accounting officer pursuant to Section 906 of the Sarbanes-Oxley Act of 2002.
- \* A management contract or compensatory plan or arrangement required to be filed as an exhibit pursuant to Item 13(a) of Form 10-KSB.
- † Filed with the Form 10-KSB for the period ended June 30, 2003.
- + The SEC granted Confidential Treatment for portions of this Exhibit.

**Senesco Technologies, Inc. and Subsidiary**  
(a development stage company)

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**CONSOLIDATED FINANCIAL STATEMENTS**

*June 30, 2003*

**Senesco Technologies, Inc. and Subsidiary**  
(a development stage company)

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INDEPENDENT AUDITOR'S REPORT

**To the Board of Directors of Senesco Technologies, Inc.**

We have audited the accompanying consolidated balance sheet of Senesco Technologies, Inc. and Subsidiary (a development stage company) as of June 30, 2003, and the related consolidated statements of operations, stockholders' equity, and cash flows for each of the two years in the period then ended and cumulative amounts from inception to June 30, 2003. These financial statements are the responsibility of the Company's management. Our responsibility is to express an opinion on these financial statements based on our audits.

We conducted our audits in accordance with auditing standards generally accepted in the United States of America. Those standards require that we plan and perform the audit to obtain reasonable assurance about whether the financial statements are free of material misstatement. An audit includes examining, on a test basis, evidence supporting the amounts and disclosures in the financial statements. An audit also includes assessing the accounting principles used and significant estimates made by management, as well as evaluating the overall financial statement presentation. We believe that our audits provide a reasonable basis for our opinion.

In our opinion, the consolidated financial statements referred to above present fairly, in all material respects, the financial position of Senesco Technologies, Inc. and Subsidiary as of June 30, 2003, and the results of their operations and their cash flows for each of the two years in the period then ended and cumulative amounts from inception to June 30, 2003 in conformity with accounting principles generally accepted in the United States of America.

**GOLDSTEIN GOLUB KESSLER LLP**

New York, New York

*August 20, 2003*

## Consolidated Balance Sheet

June 30, 2003

### ASSETS

Current Assets:

Cash and cash equivalents	\$ 319,930
Short-term investments	2,099,295
Prepaid expenses and other current assets	185,535
<b>Total current assets</b>	<b>2,604,760</b>

Property and Equipment, at cost, net of accumulated depreciation and amortization of \$82,517	75,203
Intangibles at cost, net of accumulated amortization of \$896	578,810
Deferred Income Tax Asset, net of valuation allowance of \$2,856,000	-
Security Deposit	7,187
<b>Total Assets</b>	<b>\$ 3,265,960</b>

### LIABILITIES AND STOCKHOLDERS' EQUITY

Current Liabilities:

Accounts payable	\$ 56,136
Accrued expenses	263,160
<b>Total current liabilities</b>	<b>319,296</b>

Grant Payable	90,150
<b>Total liabilities</b>	<b>409,446</b>

Commitments

Stockholders' Equity:

Preferred stock - \$0.01 par value; authorized 5,000,000 shares, no shares issued	-
Common stock - \$0.01 par value; authorized 30,000,000 shares, issued and outstanding 11,880,045 shares	118,800
Capital in excess of par	12,234,373
Deficit accumulated during the development stage	(9,496,659)
<b>Stockholders' equity</b>	<b>2,856,514</b>

<b>Total Liabilities and Stockholders' Equity</b>	<b>\$ 3,265,960</b>
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See Notes to Consolidated Financial Statements

## Consolidated Statement of Operations

	Year ended June 30,		Cumulative
	2003	2002	Amounts from Inception
Revenue	\$ 10,000	\$ 200,000	\$ 210,000
Operating expenses:			
General and administrative	1,347,526	1,308,856	6,375,303
Research and development	793,903	370,191	2,293,479
Stock-based compensation	137,177	635,186	1,498,435
<b>Total operating expenses</b>	<b>2,278,606</b>	<b>2,314,233</b>	<b>10,167,217</b>
Loss from operations	(2,268,606)	(2,114,233)	(9,957,217)
Sale of state income tax loss	130,952	150,551	341,834
Interest income - net	71,316	24,263	118,724
Net loss	\$(2,066,338)	\$(1,939,419)	\$(9,496,659)
<b>Basic and diluted loss per common share</b>	<b>\$ (.17)</b>	<b>\$ (.20)</b>	<b>-</b>
<b>Basic and diluted weighted-average number of common shares outstanding</b>	<b>11,880,045</b>	<b>9,624,563</b>	<b>-</b>

See Notes to Consolidated Financial Statements

# Consolidated Statement of Stockholders' Equity

Years ended June 30, 1999, 2000,  
2001, 2002 and 2003

	Common Stock		Capital	Deficit	Deferred	Total
	Number of	Amount	in Excess	Accumulated	Compensation	Stockholders'
	Shares		of Par	During the	Related to Issuance	Equity
				Development	of Options and	(Deficiency)
				Stage	Warrants	
Common stock outstanding	2,000,462	\$20,005	\$(20,005)	-	-	
Contribution of capital	-	-	85,179	-	-	\$ 85,179
Issuance of common stock in reverse merger on January 22, 1999 at \$0.01 per share	3,400,000	34,000	(34,000)	-	-	-
Issuance of common stock for cash on May 21, 1999 for \$2.63437 per share	759,194	7,592	1,988,390	-	-	1,995,982
Issuance of common stock for placement fees on May 21, 1999 at \$0.01 per share	53,144	531	(531)	-	-	-
Net loss	-	-	-	\$(1,168,995)	-	(1,168,995)
<b>Balance at June 30, 1999</b>	<b>6,212,800</b>	<b>62,128</b>	<b>2,019,033</b>	<b>(1,168,995)</b>	<b>-</b>	<b>912,166</b>
Fair market value of options and warrants granted on September 7, 1999	-	-	252,578	-	\$(72,132)	180,446
Fair market value of warrants granted on October 1, 1999	-	-	171,400	-	(108,600)	62,800
Fair market value of warrants granted on December 15, 1999	-	-	331,106	-	-	331,106
Issuance of common stock for cash on January 26, 2000 for \$2.867647 per share	17,436	174	49,826	-	-	50,000
Issuance of common stock for cash on January 31, 2000 for \$2.87875 per share	34,737	347	99,653	-	-	100,000
Issuance of common stock for cash on February 4, 2000 for \$2.924582 per share	85,191	852	249,148	-	-	250,000
Issuance of common stock for cash on March 15, 2000 for \$2.527875 per share	51,428	514	129,486	-	-	130,000
Issuance of common stock for cash on June 22, 2000 for \$1.50 per share	1,471,700	14,718	2,192,833	-	-	2,207,551

(continued)  
See Notes to Consolidated Financial Statements

## Consolidated Statement of Stockholders' Equity

Years ended June 30, 1999, 2000,  
2001, 2002 and 2003

	Common Stock		Capital	Deficit	Deferred	Total
	Number of	Amount	in Excess	Accumulated	Compensation	Stockholders'
	Shares		of Par	During the	Related to Issuance	Equity
				Development	of Options and	(Deficiency)
				Stage	Warrants	
Commissions, legal and bank fees associated with issuances for the year ended June 30, 2000	-	-	\$(260,595)	-	-	\$(260,595)
Net loss	-	-	-	\$(2,444,916)	-	(2,444,916)
<b>Balance at June 30, 2000</b>	<b>7,873,292</b>	<b>\$78,733</b>	<b>5,234,468</b>	<b>(3,613,911)</b>	<b>\$(180,732)</b>	<b>1,518,558</b>
Fair market value of warrants granted on October 2, 2000	-	-	80,700	-	-	80,700
Change in fair market value of options and warrants granted	-	-	154,583	-	(83,563)	71,020
Net loss	-	-	-	(1,876,991)	-	(1,876,991)
<b>Balance at June 30, 2001</b>	<b>7,873,292</b>	<b>78,733</b>	<b>5,469,751</b>	<b>(5,490,902)</b>	<b>(264,295)</b>	<b>(206,713)</b>
Fair market value of warrants granted on September 4, 2001	-	-	41,800	-	-	41,800
Fair market value of warrants granted on October 15, 2001	-	-	40,498	-	-	40,498
Fair market value of warrants granted on November 1, 2001	-	-	138,714	-	-	138,714
Issuance of common stock and warrants for cash from November 30, 2001 through April 17, 2002 at \$1.75 per unit	3,701,430	37,014	6,440,486	-	-	6,477,500
Fair market value of warrants granted on December 1, 2001	-	-	262,550	-	-	262,550
Issuance of common stock and warrants associated with bridge loan conversion on December 3, 2001	305,323	3,053	531,263	-	-	534,316
Fair market value of options vested and extended on January 1, 2002	-	-	94,146	-	-	94,146

See Notes to Consolidated Financial Statements

(continued)



## Consolidated Statement of Stockholders' Equity

Years ended June 30, 1999, 2000,  
2001, 2002 and 2003

	Common Stock		Capital	Deficit	Deferred	Total
	Number of	Amount	in Excess	Accumulated	Compensation	Stockholders'
	Shares		of Par	During the	Related to Issuance	Equity
				Development	of Options and	(Deficiency)
				Stage	Warrants	
Commissions, legal and bank fees associated with issuances for the year ended June 30, 2002	-	-	\$ (846,444)	-	-	\$ (846,444)
Fair value of options and warrants vested and change in fair market value of options and warrants granted	-	-	(15,085)	-	\$203,813	188,728
Net loss	-	-	-	\$(1,939,419)	-	(1,939,419)
Balance at June 30, 2002	11,880,045	\$118,800	12,157,679	(7,430,321)	(60,482)	4,785,676
Fair market value of warrants vested on October 15, 2002	-	-	27,832	-	-	27,832
Fair market value of warrants vested on November 1, 2002	-	-	69,665	-	-	69,665
Fair value of options and warrants vested and change in fair market value of options and warrants granted	-	-	(20,803)	-	60,482	39,679
Net loss	-	-	-	(2,066,338)	-	(2,066,338)
Balance at June 30, 2003	11,880,045	\$118,800	\$12,234,373	\$(9,496,659)	\$ - 0 -	\$ 2,856,514

See Notes to Consolidated Financial Statements

## Consolidated Statement of Cash Flows

	Year ended June 30,		Cumulative
	2003	2002	Amounts from Inception
Cash flows from operating activities:			
Net loss	\$(2,066,338)	\$(1,939,419)	\$(9,496,659)
Adjustments to reconcile net loss to net cash used in operating activities:			
Noncash capital contribution	-	-	85,179
Noncash conversion of accrued expenses into equity	-	131,250	131,250
Issuance of common stock and warrants for interest	-	9,316	9,316
Issuance of stock options and warrants for services	137,177	635,186	1,498,435
Depreciation and amortization	38,697	24,356	83,413
(Increase) decrease in operating assets:			
Accounts receivable	75,000	(75,000)	-
Prepaid expenses and other current assets	(129,763)	(40,218)	(185,535)
Security deposit	-	-	(7,187)
Increase (decrease) in operating liabilities:			
Accounts payable	(24,065)	(88,721)	56,136
Accrued expenses	(33,187)	30,615	263,160
<b>Net cash used in operating activities</b>	<b>(2,002,479)</b>	<b>(1,312,635)</b>	<b>(7,562,492)</b>
Cash flows from investing activities:			
Patent costs	(231,728)	(190,058)	(579,706)
Redemption (purchase) of investments, net	1,766,672	(3,865,967)	(2,099,295)
Purchase of property and equipment	(33,424)	(25,180)	(157,721)
<b>Cash provided by (used in) investing activities</b>	<b>1,501,520</b>	<b>(4,081,205)</b>	<b>(2,836,722)</b>
Cash flows from financing activities:			
Proceeds from grant	22,178	22,165	90,150
Proceeds from issuance of bridge notes	-	525,000	525,000
Proceeds from issuance of common stock and warrants, net	-	5,631,056	10,103,994
<b>Cash provided by financing activities</b>	<b>22,178</b>	<b>6,178,221</b>	<b>10,719,144</b>
Net increase (decrease) in cash and cash equivalents	(478,781)	784,381	319,930
Cash and cash equivalents at beginning of period	798,711	14,330	-
<b>Cash and cash equivalents at end of period</b>	<b>\$ 319,930</b>	<b>\$ 798,711</b>	<b>\$ 319,930</b>
<b>Supplemental disclosure of cash flow information:</b>			
Cash paid during the period for interest	\$ -	\$ -	\$ 22,317
<b>Supplemental schedule of noncash financing activity:</b>			
Conversion of bridge notes into stock	\$ -	\$ 534,316	\$ 534,316

See Notes to Consolidated Financial Statements

## Notes To Consolidated Financial Statements

### 1. PRINCIPAL BUSINESS ACTIVITY AND SUMMARY OF SIGNIFICANT ACCOUNTING POLICIES:

The accompanying consolidated financial statements include the accounts of Senesco Technologies, Inc. ("ST") and its wholly owned subsidiary, Senesco, Inc. ("SI") (collectively, the "Company"). All significant intercompany accounts and transactions have been eliminated in consolidation.

The Company is a development stage functional genomics company whose mission is to enhance the quality and productivity of fruits, flowers, vegetables and agronomic crops through the control of aging in plants (senescence). The Company has also commenced research into the applicability of its technology as it relates to cell death in mammals (apoptosis).

SI, a New Jersey corporation, was incorporated on November 24, 1998 and is the successor entity to Senesco, L.L.C., a New Jersey limited liability company, which was formed on June 25, 1998 but commenced operations on July 1, 1998. This transfer was accounted for at historical cost in a manner similar to a pooling of interests with the recording of net assets acquired at their historical book value.

On January 21, 1999, Nava Leisure USA, Inc. ("Nava"), an Idaho corporation and the predecessor registrant to the Company, effected a one-for-three reverse stock split, restating the number of shares of common stock outstanding from 3,000,025 to 1,000,321. In addition, the number of authorized common stock was decreased from 50,000,000 shares, \$.0005 par value, to 16,666,667 shares, \$.0015 par value (the "Common Stock").

On January 22, 1999, Nava consummated a merger (the "Merger") with SI. Nava issued 1,700,000 shares of Common Stock, on a post-split basis, for all of the outstanding capital stock of SI. Pursuant to the Merger, the stockholders of SI acquired majority control of Nava, and the name of Nava was changed to Senesco Technologies, Inc. and SI remained a wholly owned subsidiary of ST. For accounting purposes, the Merger has been treated as a recapitalization of the Company with SI as the acquirer (a reverse acquisition).

On September 30, 1999, the board of directors of the Company approved the reincorporation of the Company solely for the purpose of changing its state of incorporation from Idaho to Delaware. In order to facilitate such reincorporation, the Company, an Idaho corporation, on September 30, 1999, merged with and into the newly formed Senesco Technologies, Inc., a Delaware corporation.

On December 12, 2002, the shareholders approved a proposal to increase the authorized Common Stock of the Company from 20,000,000 shares to 30,000,000 shares.

Cash equivalents consist of investments which are readily convertible into cash with original maturities of three months or less. The Company maintains its cash in bank deposit accounts which, at times, may exceed federally insured limits. The Company believes that there is no significant credit risk with respect to these accounts.

The Company's investments consist of United States treasury notes and high-grade corporate and federal governmental agency debt instruments. Based on the Company's intentions regarding these instruments, the Company has classified all marketable debt securities as held-to-maturity and has accounted for these investments at amortized cost. Marketable securities maturing in one year or less are classified as current assets.

Depreciation of property and equipment is provided for by the straight-line method over the estimated useful lives of the assets. Leasehold improvements are amortized over the lesser of the assets' useful lives or the remaining term of the lease.

Intangible assets consist of costs related to acquiring patents. Issued patents are being amortized over 20 years. Pending patent applications will be amortized when the patents are issued.

## Notes To Consolidated Financial Statements

The Company assesses the impairment in value of intangible assets whenever events or circumstances indicate that their carrying value may not be recoverable. Factors the Company considers important which could trigger an impairment review include the following:

- significant negative industry trends
- significant underutilization of the assets
- significant changes in how the Company uses the assets or its plans for its use.

If the Company's review determines that the future undiscounted cash flows related to these assets will not be sufficient to recover their carrying value, the Company will reduce the carrying values of these assets down to its estimate of fair market value and continue amortizing them over their remaining useful lives.

Deferred income tax assets and liabilities are recognized for the future tax consequences attributable to differences between financial statement carrying amounts of existing assets and liabilities and their respective tax bases. Deferred tax assets and liabilities are measured using enacted rates expected to apply when the differences are expected to be realized.

The Company recognizes revenue from development and progress payments in connection with license and development agreements when persuasive evidence of an arrangement exists; the fee is fixed and determinable; delivery has occurred or milestones have been achieved; and collectability is reasonably assured.

Research and development expenses are charged to operations when incurred.

The Company applies APB Opinion No. 25 and related interpretations in accounting for its stock option plans. Options to purchase common stock have been granted at or above the fair market value of the stock on the date of grant. Accordingly, no compensation cost has been recognized for the stock option plans. Had compensation cost been determined based on the fair value at the grant dates for those awards consistent with the method of FASB No. 123, the Company's net loss and net loss per share would have been increased to the pro forma amounts indicated below:

Year ended June 30,	2003	2002
Net loss:		
As reported	\$(2,066,338)	\$(1,939,419)
Stock-based employee compensation costs	(737,841)	(1,032,600)
Pro forma	\$(2,804,179)	\$(2,972,019)
Loss per share:		
As reported	\$ (.17)	\$ (.20)
Pro forma	\$ (.24)	\$ (.31)

The estimated grant date present value reflected in the above table is determined using the Black-Scholes model. The material factors incorporated in the Black-Scholes model in estimating the value of the options reflected in the above table for the years ended June 30, 2003 and 2002 include the following: (i) an exercise price equal to the fair market value of the underlying stock on the dates of grant; (ii) an option term of 5 and 10 years; (iii) a risk-free rate range of 3.00% to 4.22% and 4.24% to 5.18%, respectively, that represents the interest rate on a U.S. Treasury security with a maturity date corresponding to that of the option term; (iv) volatility of 147.83%; and (v) no annualized dividends paid with respect to a share of Common Stock at the date of grant. The ultimate values of the options will depend on the future price of the Company's Common Stock, which cannot be forecast with reasonable accuracy.

## Notes To Consolidated Financial Statements

Loss per common share is computed by dividing the loss by the weighted-average number of common shares outstanding during the period. Shares to be issued upon the exercise of the outstanding options and warrants are not included in the computation of loss per share as their effect is antidilutive.

The preparation of financial statements in conformity with accounting principles generally accepted in the United States of America requires management to make estimates and judgments that affect the reported amounts of assets and liabilities and disclosure of contingent assets and liabilities at the date of the financial statements and the reported amounts of revenue and expenses during the reporting period. The critical accounting policies that require management's most significant estimate and judgment are the assessment of the recoverability of intangible assets, the valuation allowance on deferred tax assets and the amount of accrued research costs. Actual results experienced by the Company may differ from management's estimates.

Management does not believe that any recently issued, but yet effective, accounting standards if currently adopted would have a material effect on the accompanying consolidated financial statements.

### 2. INVESTMENTS:

At June 30, 2003, the amortized cost basis, aggregate fair value, gross unrealized gains and maturity by majority security type were as follows:

	Gross Unrealized Gain	Aggregate Fair Value	Amortized Cost Basis
Held-to-maturity securities:			
Debt securities issued by United States (maturing within one year)	\$4,698	\$1,003,993	\$999,295
Corporate debt securities (maturing within one year)	783	1,100,783	1,100,000
	\$5,481	\$2,104,776	\$2,099,295

Realized gains and losses are determined based on the specific-identification method.

### 3. PROPERTY AND EQUIPMENT:

Property and equipment, at cost, consists of the following:

		Estimated Useful Life
Company Web Site	\$26,500	3 years
Equipment	56,313	4 years
Leasehold improvements	7,233	5 years
Furniture and fixtures	67,674	7 years
	157,720	
Accumulated depreciation and amortization	(82,517)	
	\$75,203	

Depreciation and amortization aggregated \$37,801 and \$24,356 for the years ended June 30, 2003 and 2002, respectively.

## Notes To Consolidated Financial Statements

### 4. ACCRUED EXPENSES:

The following are included in accrued expenses at June 30, 2003:

Accrued research	\$179,316
Accrued accounting	37,500
Accrued patent costs	29,743
Accrued payroll	10,711
Accrued legal	5,890
	<hr/> \$263,160 <hr/>

### 5. RELATED PARTY TRANSACTIONS:

During the year ended June 30, 1999, a stockholder and former director of the Company contributed capital aggregating \$85,179. This capital was used to pay expenses of the Company.

During the year ended June 30, 2002, the Company issued bridge notes to certain directors of the Company in the aggregate principal amount of \$525,000 (see Note 6).

### 6. STOCKHOLDERS' EQUITY:

On May 21, 1999, the Company consummated a private placement of 759,194 shares of its Common Stock for cash consideration of \$2,000,000 less costs of \$4,018. Pursuant to the Placement Agency Agreement, the Placement Agent was to receive \$140,000 in either cash or common stock, as defined. The Placement Agent received 53,144 shares of common stock valued at \$2.63437 per share for its services. In connection with the Private Placement, the Company also executed a Common Stock Purchase Agreement with each purchaser of Common Stock, dated as of May 11, 1999. Pursuant to the Stock Purchase Agreement, the purchase price per share of Common Stock was determined by taking 80% of the average closing bid and ask prices of the Company's Common Stock during the 20 trading days ending three days prior to the closing date, as defined. The Stock Purchase Agreement also provides for price protection whereby upon issuance or sale by the Company of any additional Common Stock or Common Stock equivalents within a period of 60 days following the closing date, other than options or warrants currently outstanding as of the date of the Stock Purchase Agreement, for a consideration per share less than the purchase price provided for in the Stock Purchase Agreement (the "Reduced Purchase Price"), then the Company shall immediately issue such additional shares of Common Stock to the purchaser which each such purchaser's investment would have purchased at the Reduced Purchase Price. In addition, the Company entered into a Registration Rights Agreement with each purchaser dated May 11, 1999. The Registration Rights Agreement provides for, among other things, a demand registration right beginning after January 22, 2000, as well as piggy-back registration rights for a three-year period from the closing date. Certain directors of the Company participated in the Private Placement. Specifically, such directors of the Company purchased, in the aggregate, 341,636 shares of Restricted Common Stock on the same terms and conditions as all purchasers thereunder.

On September 29, 1999, the board of directors of the Company approved and declared a 2-for-1 stock split (the "Stock Split"). Stockholders of record as of the close of business on October 8, 1999 received one additional share of the Company's Common Stock for every one share of Common Stock held on that date. The Stock Split became effective on the NASD OTC Bulletin Board on October 25, 1999. All share and per share amounts provided in the foregoing financial statements and notes have been restated to reflect the Stock Split as of September 29, 1999.

## Notes To Consolidated Financial Statements

In December 1999, the Company initiated a private placement of shares of its restricted Common Stock (the "December Private Placement"). The Company did not engage a placement agent for the sale of such securities. The Company issued an aggregate of 188,792 shares of the Company's restricted Common Stock for a net purchase price of \$508,689 (which is net of \$21,311 in legal fees) in connection with the December Private Placement. The Company also executed Common Stock Purchase Agreements with each purchaser of Common Stock. Pursuant to the Stock Purchase Agreements, the purchase price per share of Common Stock was equal to 80% of the average closing bid and ask prices of the Company's Common Stock during the 20 trading days ending three days prior to the Closing Date (as defined therein). In addition, the Company entered into Registration Rights Agreements with each purchaser. The Registration Rights Agreements provide for, among other things, a demand registration right beginning one year from the final Closing Date of the December Private Placement, as well as piggy-back registration rights for a three-year period from the Closing Date. Certain directors of the Company participated in the December Private Placement. Specifically, such directors of the Company purchased, in the aggregate, 52,173 shares of restricted Common Stock on the same terms and conditions as all purchasers thereunder.

In June 2000, the Company consummated a private placement of 1,471,700 shares of Common Stock for cash consideration of \$2,207,551 less costs of \$239,284. Pursuant to the Stock Purchase Agreements, the purchase price per share of Common Stock was equal to \$1.50 per share. In addition, the Company entered into Registration Rights Agreements with each purchaser. The Registration Rights Agreements provide for, among other things, a demand registration right beginning nine months from the final Closing Date of the Placement, as well as piggy-back registration rights for a three-year period from the Closing Date. In addition, the Company has caused its directors, officers and holders of more than 5% of the outstanding shares of Common Stock of the Company to enter into Lock-up Agreements for a period of nine months from the Closing Date with the Placement Agent for the benefit of the Purchasers. A director and officer of the Company participated in this Private Placement. Specifically, such director and officer of the Company purchased, in the aggregate, 66,667 shares of Restricted Common Stock on the same terms and conditions as all purchasers hereunder.

In November 2001, the Company consummated a private placement (the "Stanford Private Placement") with Stanford Venture Capital Holdings, Inc. ("Stanford") of 1,142,858 shares of Common Stock and warrants to purchase 1,000,000 shares of Common Stock for the aggregate cash consideration of \$2,000,000. Costs associated with the Stanford Private Placement totaled \$256,347. The Company did not engage a placement agent for the sale of such securities. Fifty percent (50%) of the warrants were issued with an exercise price equal to \$2.00 per share and fifty percent (50%) of the warrants were issued with an exercise price equal to \$3.25 per share, with all such warrants vesting on the date of grant. Pursuant to the Securities Purchase Agreement, the purchase price of one unit, which consisted of one share of Common Stock and a warrant to purchase 0.875 shares of Common Stock, was equal to \$1.75 per unit. In addition, the Company entered into a Registration Rights Agreement with Stanford. The Registration Rights Agreement provides, among other things, that a shelf registration statement be filed on or before June 30, 2002, as well as piggy-back registration rights for a three-year period from the date of the agreement.

During the period from July 10, 2001 through November 5, 2001, the Company issued six unsecured bridge notes (the "Notes") payable to certain directors of the Company in the aggregate principal amount of \$525,000. The Notes had an annual interest rate equal to the prime rate on the date that the Notes were issued (5.50% to 6.75%) and such interest was payable upon maturity of the Notes. The Notes and accrued interest were due on January 15, 2002. On December 3, 2001, the directors converted the Notes and accrued interest in the aggregate amount of \$534,316 into 305,323 shares of Common Stock and warrants to purchase 267,158 shares of Common Stock on the same terms and conditions as the Stanford Private Placement.

Also in November 2001, the Company initiated a private placement, as later amended in March 2002, to certain accredited investors (the "Accredited Investor Private Placement") for a minimum aggregate investment of \$1,000,000 and a maximum aggregate investment of \$4,000,000. For investments of less than \$1,500,000, the Accredited Investor Private Placement offered units of one share of Common Stock and a warrant to purchase 0.4375 shares of Common Stock at a price equal to

## Notes To Consolidated Financial Statements

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\$1.75 per unit. For investments of \$1,500,000 or greater, the Accredited Investor Private Placement offered units of one share of Common Stock and a warrant to purchase 0.875 shares of Common Stock at a price equal to \$1.75 per unit. Fifty percent (50%) of the warrants were offered with an exercise price equal to \$2.00 per share and fifty percent (50%) of the warrants were offered with an exercise price of \$3.25 per share, with all such warrants vesting on the date of grant. From December 26, 2001 through April 17, 2002, when the Company terminated the offering, the Company entered into Securities Purchase Agreements for the aggregate amount of 1,987,143 shares of Common Stock and warrants to purchase 1,244,375 shares of Common Stock for the aggregate cash consideration of \$3,477,500. Costs associated with these transactions totaled \$447,236. The Company did not engage a placement agent for the sale of such securities. In addition, the Company entered into Registration Rights Agreements with the purchasers. The Registration Rights Agreements provide for, among other things, piggy-back registration rights for a three-year period from the date of each agreement.

In January 2002, the Company consummated another private placement with Stanford for 571,429 shares of Common Stock and warrants to purchase 500,000 shares of Common Stock for the aggregate cash consideration of \$1,000,000, on the same terms and conditions as the initial Stanford Private Placement. Costs associated with this transaction totaled \$142,861.

In connection with the above private placements, on December 26, 2001 and March 15, 2002, the board of directors unanimously approved the issuance of warrants to certain entities to purchase an aggregate of 571,869 shares of Common Stock on the same terms and conditions as the warrants issued in the Accredited Investor Private Placement and warrant for an additional 18,750 shares of Common Stock at an exercise price equal to \$2.00 per share.

Also in connection with the above private placements, in May 2002, the Company filed a registration statement with the Securities and Exchange Commission (the "SEC") to register all of its 8,102,642 shares of previously issued restricted common stock and all of its 4,202,153 previously issued warrants and options issued outside of the Company's 1998 Stock Incentive Plan. The registration statement was declared effective by the SEC on June 28, 2002 and will remain in effect, subject to the Company being in compliance with all the applicable rules and regulations, until June 28, 2004.

In December 2001, a director and former executive officer of the Company converted accrued consulting fees in the amount of \$131,250 into options to purchase shares of the Company's Common Stock at an exercise price of \$2.05 per share.

In 1999, the Company adopted the 1998 Stock Incentive Plan, as amended (the "Plan"), which provides for the grant of stock options and stock purchase rights to certain designated employees and certain other persons performing services for the Company, as designated by the board of directors. Pursuant to the Plan, an aggregate of 3,000,000 shares of common stock have been reserved for issuance. On March 28, 2003, the Company filed a registration statement with the Securities and Exchange Commission to register all of the 3,000,000 shares of Common Stock underlying the Plan. The registration statement was deemed effective upon filing.



## Notes To Consolidated Financial Statements

Stock option activity under the Plan is summarized as follows:

Year ended June 30,	2003		2002	
	Shares	Weighted-average Exercise Price	Shares	Weighted-average Exercise Price
Options outstanding at beginning of year	1,616,000	\$2.63	450,000	\$3.40
Granted	245,000	\$2.22	1,181,000	\$2.46
Expired	(80,000)	\$3.05	(15,000)	\$3.50
Options outstanding at end of year	1,781,000	\$2.56	1,616,000	\$2.63
Options exercisable at end of year	1,338,500	\$2.70	1,095,666	\$2.80
Weighted-average fair value of options granted during the year		\$2.08		\$1.83

The following table summarizes information about stock options outstanding at June 30, 2003:

Range of Exercise Prices	Number Outstanding at June 30, 2003	Options Outstanding		Options Exercisable	
		Weighted- average Remaining Contractual Life (Years)	Weighted- average Exercise Price	Number Exercisable at June 30, 2003	Weighted- average Exercise Price
\$1.50 - \$4.00	1,781,000	7.34	\$2.56	1,338,500	\$2.70

On September 7, 1999, the Company granted to its patent counsel, as partial consideration for services rendered, options to purchase 10,000 shares of the Company's Common Stock at an exercise price equal to \$3.50 per share, with 3,332 options vesting on the date of grant, 3,334 options vesting on the first anniversary of the date of grant, and 3,334 options vesting on the second anniversary of the date of grant. Such options were granted outside of the Company's Plan.

As of June 30, 2003, the Company had warrants outstanding for the purchase of 4,207,153 shares of Common Stock. Information on outstanding warrants is as follows:

Exercise Price	Warrants
\$3.50	280,000
3.25	1,791,703
3.19	30,000
2.35	15,000
2.15	110,000
2.00	1,810,450
1.50	100,000
1.00	50,000
0.01	20,000
	4,207,153

## Notes To Consolidated Financial Statements

For the years ended June 30, 2003 and 2002, the Company incurred a compensation charge of \$137,177 and \$635,186, respectively, relating to the above options and warrants. As of June 30, 2003, 4,148,820 of the above warrants are exercisable.

The Company uses the Black-Scholes model to determine the compensation charge relating to the above warrants. The material factors used in the Black-Scholes model include the following: (i) an exercise price equal to or below the fair market value of the underlying stock on the dates of grant; (ii) an option term of 5 and 10 years; (iii) a risk-free rate range of 3.50% to 3.93% and 4.24% to 5.15%, respectively, that represents the interest rate on a U.S. Treasury security with a maturity date corresponding to that of the option term; (iv) volatility of 147.83%; and (v) no annualized dividends paid with respect to a share of Common Stock at the date of grant.

### 7. INCOME TAXES:

The Company files a consolidated federal income tax return. The subsidiary files separate state and local income tax returns. The reconciliation of the effective income tax rate to the federal statutory rate is as follows:

Year ended June 30,	2003	2002
Federal statutory rate	(34)%	(34)%
Increase in valuation allowance	34	34
	- 0 - %	- 0 - %

At June 30, 2003, the deferred income tax asset consists of the following:

Deferred tax asset:	
Net operating loss carryforward	\$ 2,856,000
Valuation allowance	(2,856,000)
Net deferred tax asset	\$ - 0 -

In December 2002 and 2001, the Company sold its entire state net operating losses for the years ended June 30, 2001 and 2000, and received net proceeds of \$130,952 and \$150,551, respectively.

At June 30, 2003, the Company has federal and state net operating loss carryforwards of approximately \$7,470,000 and \$3,511,000, respectively, available to offset future taxable income expiring on various dates through 2023.

## Notes To Consolidated Financial Statements

### 8. COMMITMENTS:

Effective September 1, 1998, the Company entered into a three-year research and development agreement with a university that a stockholder of the Company is affiliated with. Pursuant to the agreement, the university provides research and development under the direction of the stockholder and the Company. The agreement is renewable annually by the Company which has the right of termination upon 30 days' advance written notice. Effective September 1, 2001 and 2002, the Company extended the research and development agreement for an additional one-year and two-year period, respectively, in the amount of Can \$433,700 and Can \$1,092,800, respectively, or approximately U.S. \$285,000 and U.S. \$720,000, respectively. Research and development expenses under this agreement for the years ended June 30, 2003 and 2002 aggregated U.S. \$373,240 and U.S. \$254,347 respectively, and U.S. \$1,446,204 for the cumulative period through June 30, 2003.

Effective May 1, 2002, the Company entered into an additional one-year research and development agreement in the amount of Can \$50,000 or U.S. \$42,626, all of which was incurred during the year ended June 30, 2003.

Effective May 1, 1999, the Company entered into a consulting agreement for research and development with such stockholder. Effective January 1, 2003, the agreement was amended to provide for an increase in the monthly payments from \$3,000 to \$5,000 through June 2004. The agreement shall be automatically renewable for an additional three-year term, unless either of the parties provides the other with written notice within six months of the end of the term.

The Company has employment agreements with certain employees, all of whom are also stockholders of the Company. These agreements provide for a base compensation and additional amounts, as defined. The agreements expire between January 2004 and June 2006. Future base compensation to be paid through June 2006 under the agreements as of June 30, 2003 is \$673,750.

Effective May 18, 2001, the Company entered into a five-year lease for office space. Rent is payable in monthly installments of \$2,838, subject to certain escalations. Future minimum rent payments as of June 30, 2003 are as follows:

Year ending June 30,	
2004	\$ 34,056
2005	34,056
2006	28,380
	<hr/> \$96,492 <hr/>

Rent expense charged to operations for the years ended June 30, 2003 and 2002 is \$38,252 and \$37,037, respectively.

### 9. JOINT VENTURE:

On May 14, 1999, the Company entered into a joint venture agreement ("Joint Venture") with an Israeli partnership that is engaged in the worldwide marketing of tissue culture plants. The purpose of the Joint Venture is to develop enhanced banana plants which will result banana fruit with improved consumer- and grower-driven traits. The Joint Venture is owned 50% by the Company and 50% by the Israeli partnership. For the period from inception on May 14, 1999 to June 30, 2002, the Joint Venture had no revenue. The Company's portion of the Joint Venture's expenses approximated \$53,500 and \$41,000 for the years ended June 30, 2003 and 2002, respectively, and is included in research and development expenses.

## Notes To Consolidated Financial Statements

In July 1999, the Joint Venture applied for and received a conditional grant from the Israel - United States Binational Research and Development Foundation (the "BIRD Foundation"). This agreement will allow the Joint Venture to receive \$340,000 over a four-year period ending May 31, 2003. Grants received from the BIRD Foundation will be paid back only upon the commercial success of the Joint Venture's technology, as defined. The Company has received a total of \$90,150, of which \$22,178 and \$22,165 was received during the years ended June 30, 2003 and 2002, respectively, from the BIRD Foundation for research and development expenses the Company has incurred which are associated with research and development efforts of the Joint Venture. The Company expects to receive one additional installment from the BIRD Foundation in connection with expenses incurred by the Company during the period from December 1, 2002 through May 31, 2003.

### 10. LICENSE AND DEVELOPMENT AGREEMENTS:

In November 2001, the Company entered into a worldwide exclusive license with Harris Moran Seed Company (the "License") to commercialize the Company's technology in lettuce and certain melons. In connection with the License, the Company received an initial license fee of \$125,000 in November 2001. Upon signing an agreement with a marketing partner, Harris Moran Seed Company will pay the Company an additional \$125,000 fee. The License also provides for the marketing partner to make development payments to the Company of \$3,750,000 upon the completion of development benchmarks, as well as certain royalties upon commercial introduction.

In June 2002, the Company entered into a three-year exclusive worldwide development and option agreement with ArborGen, LLC (the "Agreement") to develop the Company's technology in certain species of trees. In July 2002, the Company received an initial fee of \$75,000. Upon the completion of certain development benchmarks set forth in the Agreement, the Company will receive an additional \$225,000 in periodic development payments over the term of the Agreement. The Agreement also grants ArborGen, LLC an option to acquire an exclusive worldwide license to commercialize the Company's technology in various forestry products.

In September 2002, the Company entered into an exclusive development and license agreement with Cal/West Seeds (the "Cal/West License") to commercialize the Company's technology in certain varieties of alfalfa. In connection with the execution of the Cal/West License, the Company received an initial fee of \$10,000. Upon the completion of certain development benchmarks, the Company will receive an additional \$20,000 in periodic payments, and upon the commercialization of certain products, the Company will receive royalty payments from Cal/West.

Also in September 2002, the Company entered into an exclusive worldwide collaboration agreement with Anawah, Inc. (the "Anawah Agreement") to establish a research alliance to develop and commercialize certain genetically enhanced species of produce. Under the Anawah Agreement, Anawah will license its proprietary technology to the Company and will also perform certain transformation functions in order to develop seeds in certain species of produce that have been enhanced with our technology. In connection with the execution of the Anawah Agreement, the Company incurred an initial research and development fee of \$200,000, which is being amortized over the term of the research to be performed under the agreement. Upon the completion of certain development benchmarks, the Company will incur additional research and development fees, and upon commercialization of the enhanced produce, the Company will make certain royalty payments to Anawah.

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*“Senesco’s technology is based on the  
discovery of two genes, DHS and Factor 5A.  
DHS activates Factor 5A, which in turn  
appears to function as a switch.”*

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*John Thompson, Ph.D.*

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*Executive Vice President, Research and Development*

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## Board of Directors

**John E. Banta**

*Chairman of the Board and President*

*Director since 1999*

*Age 59*

**Christopher E. Holden**

*Director since 1999*

*Age 54*

*Age 54*

**David C. Laiton**

*Chairman of the Board and President*

*Director since 1999*

*Age 54*

**James C. Quirk**

*Chairman of the Board and President*

*Director since 1999*

*Age 54*

**John E. Rector**

*Director since 1999*

*Age 54*

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## Corporate Headquarters

Senesco Technologies, Inc.

403 George St., Suite 420

New Brunswick, New Jersey 08901

Telephone: 732-296-8400

Facsimile: 732-296-9292

Internet Site: <http://www.senesco.com>

## New Jersey Subsidiary

Senesco, Inc.

403 George St., Suite 420

New Brunswick, New Jersey 08901

Telephone: 732-296-8400

Facsimile: 732-296-9292

Internet Site: <http://www.senesco.com>

## Transfer Agent and Registrar

American Stock Transfer & Trust Company

63 Maiden Lane

New York, New York 10038

## Counsel

Gold and Dorr LLP

650 College Road East

Princeton, New Jersey 08540

## Independent Public Accountants

Goldstein Golub & Kessler LLP

1135 Avenue of the Americas

New York, New York 10036-2602

## Number of Holders of Common Stock

As of October 22, 2003, there are 285 stockholders of record of Common Stock.

## Dividends

The Company has not paid any cash dividends on its Common Stock since its inception and does not anticipate paying cash dividends in the foreseeable future.

## Market for Common Stock

American Stock Exchange (AMEX)

Symbol: SNT

## SEC Form 10-KSB and Stockholders Inquiries

A copy of the Company's Annual Report to the Securities and Exchange Commission on Form 10-KSB is available without charge. Request for Form 10-KSB or other stockholder information should be directed in writing to:

Investor Relations	Eippert / Heilshorn & Associates, Inc.
Senesco Technologies, Inc.	Attn: David Waldman
403 George St.	8th Third Avenue
Suite 420	17th Floor
New Brunswick, New Jersey	New York, New York 10022
08901	212-638-3777

## Scientific Advisory Board

**James E. Banta, Ph.D.**

*Chairman of the Board and President*

*Director since 1999*

*Age 54*

**John E. Rector, M.D.**

*Chairman of the Board and President*

*Director since 1999*

*Age 54*

**John E. Rector, Ph.D.**

*Chairman of the Board and President*

*Director since 1999*

*Age 54*

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## Annual Meeting

The Annual Meeting of Stockholders will take place on Tuesday, December 2, 2003 at 10:00 am at the American Stock Exchange, New York, New York 10006.

Normal  
Growth

Senesco  
Technology

} SENESENCE }

Our technology  
dramatically  
increases the shelf  
life of bananas.

Day 1

Day 1

Day 7

Day 7

Day 10

Day 10

Day 16

**www.senesco.com**

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